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## American Railroad Journal.

New York, Saturday, August 23, 1862.

### Caboose Passengers—Accidents to—Companies liable for.

WHERE THERE IS NO APPARENT CAUSE FOR AN ACCIDENT IT IS A REASONABLE PRESUMPTION THAT IT ARISES FROM THE COMPANY'S NEGLIGENCE. WHEN A PASSENGER HAS A RIGHT TO LEAVE A TRAIN AND RESUME HIS JOURNEY UPON AN OTHER.

This action was brought by one Edgerton against the New York and Harlem Railroad Company to recover damages for personal injuries sustained by him while traveling in a caboose car upon that company's road, on the 29th of Feb'y, 1859. As the train entered the village of Chatham Four Corners, and while the plaintiff was seated in the after part of the car, and near the middle of it, the rear truck of the car ran off the track; the car was twisted and broken in two, the after part of it smashed in pieces, and the plaintiff thereby thrown from it, among the wreck of the car, receiving severe injuries. The defendants were in the habit of carrying passengers in this caboose car at regular and fixed rates of fare, the same rates as in passenger trains, and other passengers were in the car at the time of the accident. The train was going as the conductor stated from five to six miles an hour; as the engineer stated from

five to eight miles an hour. The car was an old one, and a wagon maker testified that the timbers "were not strong, and were insufficient for the business." There was no explanation whatever offered for the cause of the accident; and the engineer testified that the cause was unknown to him. The plaintiff had paid his fare from New York to Albany, and taken a ticket at the office of the company. He left New York in one of the ordinary passenger trains, in which he rode to Hillsdale. On this train he gave up his ticket, and received a check from the conductor in exchange. He remained at Hillsdale on Sunday, and on Monday morning got upon this train, which was a freight train with no passenger car attached, except what is called a "caboose car," into which the plaintiff got.

At the close of the testimony the action and complaint was dismissed upon the ground that negligence on the part of the plaintiff contributed to the injury, and that no negligence upon the part of the defendants was shown. The plaintiff then appealed to the Orange General Term of the New York Supreme Court. The following opinion was rendered, reversing the judgment of the court below, and ordering a new trial.

EMOTT, J.—There was some objection to recognizing his (the plaintiff's) right to be carried without paying fare upon the ticket or check which he had received in the other train, and his fare was at first demanded and paid. Subsequently the conductor returned him the money, and allowed him to ride in the train by virtue of his ticket. There was, however, no objection made to his getting on the train or being carried in it, at all. The only question was whether his ticket was good for that train, or whether he should be compelled to pay fare over again from Hillsdale to Chatham, or to Albany. That was a question which the company no doubt might have decided by any reasonable regulation, which they saw fit to make and publish upon the subject.

They were not bound to issue tickets which should be good for all their trains. They might restrict their tickets in terms to one train, or one day only. But after receiving a passenger on a train upon which other persons were carried for hire, demanding fare from him, then returning it

and recognizing his ticket as evidence of a contract authorizing him to be carried without further charge, it is too late for the company to say that he was wrongfully there, or was guilty of any fault in leaving the ordinary passenger train and embarking upon this freight train. The allegation that the plaintiff was guilty of negligence in taking a seat in a freight car is at least equally inadmissible.

It was said that this was contrary to the rules of the company; but I do not perceive any evidence to that purpose, while the fact that passengers are transported by the company in this kind of conveyance, that the plaintiff was carried on board with others and fare demanded of him, and only returned because it had been already paid at the company's office, go directly to the contrary conclusion. This car was the means and the only means of transportation offered by the defendants on this train. The plaintiff might have supposed that it would be over-uncomfortable; but I am not aware of any reason why he should have believed it to be an unsafe method of travel. The defendants placed it upon their road, used it to convey persons, received compensation from those who rode in it, and from the plaintiff among others. It does not lie in their mouths to say that it was so manifestly dangerous that the plaintiff was guilty of negligence in getting into it to ride. There is nothing in the conduct of the plaintiff to prevent his recovering for his injuries, if these were sustained in consequence of any fault or misconduct of the defendants.

After all the evidence was in, the Judge before whom the cause was tried non-suited the plaintiff, no doubt because in his opinion such fault or misconduct was not shown. It appeared that when approaching Chatham, the car in which the plaintiff was riding, and which was the last car of the train, ran off the track, was dashed against a freight car which was standing upon the adjoining track, and broken in pieces, and the plaintiff was injured by the collision. There was some contrariety of evidence as to the rate of speed of the train at the time, but the weight of evidence undoubtedly is that it was going at very slow speed. At the place where it occurred, the track of the Hudson and Berkshire railroad crossed the

defendants' road, using what is known as a frog, at the passage of the rails. Whether the car was made to leave the track by any imperfection in this frog, or what was the cause of the occurrence, is left in doubt. There must have been some cause for such a result. It is not an incident to the ordinary motion of a properly constructed car upon a properly constructed road, that it should jump off the track and be broken in pieces, either according to the laws of mechanics or the rules of a carriers' duty. At least it was a question for the jury whether a vehicle would be overturned in such a way, without some assignable cause in itself, or in the track. There was some evidence tending to show that the immediate and entire disruption and distension of the car was occasioned by the feebleness of its materials, and it was a fair inference that the plaintiff's injuries were aggravated, if not occasioned, by its breaking to pieces as it did.

It will be observed that the testimony on both sides was concluded before the complaint was dismissed. The case does not, therefore, present precisely a question as to what the presumption should be, or where the burden of proof should fall, to establish negligence in such a case. The question is whether upon the whole case the jury would have been bound to find that the occurrence took place without any fault or negligence of the defendants in the construction or use of their road or their cars.

It is an elementary principle in regard to the duty and responsibility of carriers of passengers, that they are bound to carry safely those whom they undertake to carry, as far as human care and foresight will go. Where an injury is sustained by a passenger in consequence of anything in the construction or management of the vehicle or the machinery of transportation, the carrier is responsible, if any exercise of care or foresight would have prevented it. In the case at bar no evidence was given by the defendants, to explain the occurrence or show its occasion; nor was there any evidence of the exercise of any skill, or foresight or precaution in the preparation or examination of the vehicle or the track, except the very slight evidence of the belief of the conductor and the engine driver on the train, that they were in good order, and the fact that no accident had hitherto occurred to that car, or at that place. The responsibility of a railroad company extends to all the means employed in transportation. Not only the motive power and the vehicle, but the track upon which they run, are prepared and provided by them, and are in their exclusive control and charge. When a collision occurs, or a vehicle is overturned or destroyed, they are at least better able than any one else to explain how it took place. I do not say a presumption necessarily arises from the fact that the railroad company do not explain or account for such an occurrence, that they are to blame. That is not necessary at present. But when it is proved that a car running at a very moderate speed went off the track, and coming in collision with a stationary object, was dashed in pieces and destroyed, it is not an unjustifiable or an unreasonable inference that this was occasioned by some defect in the construction of the car or road, or both. It was for the defendants in the present case to show that they had used every means which skill and prudence could

dictate, to see that their road was in perfect order, and their cars constructed of the best materials, and in the most approved manner. Upon such evidence it would be for the jury to say whether the overturn of the car was unavoidable by human skill, or whether if due precaution had been taken it would have occurred; and whether if the car had been properly built it would have been destroyed as it was, and the plaintiff thus seriously injured, even if it had left the track. When no cause is directly or positively assigned by the evidence for such an occurrence as that by which the plaintiff was injured, we are not required nor allowed to presume that it inevitable. It is a more legitimate inference that it was occasioned by some defect in the vehicle or track. Whether that defect could have been discovered and remedied, was a question for a jury. We are of opinion that this case should have been left to the jury, under proper instructions. The nonsuit was erroneously granted and it must be set aside and a new trial ordered.

Subsequently a new trial was had in this case, and a verdict rendered by the jury awarding the plaintiff \$1,500 damages. A motion was made for a new trial by the company which motion was denied by a Special Term; and this judgment was affirmed by the General Term, which held that a company cannot escape liability because the passenger was transported in a freight train and in a car not especially constructed to carry passengers, where it appears that he was so carried with the knowledge and consent of the company: notwithstanding the 40th section of the general railroad law; when there is no proof that there were any printed regulations of the company posted up in the train, and there were no passenger cars attached.

#### Our City Passenger Railroads.

The City Avenue Railroad Stocks continue in high favor, and most of them are scarce on the market. The Third, Sixth and Eighth stocks are largely above par, and quoted as follows:

Third-avenue Railroad Shares..... 180 per cent.  
Sixth-avenue Railroad Shares..... 135 "  
Eighth-avenue Railroad Shares..... 150 "

The shares of the Second-avenue have ruled below par, say 70 a 80 per cent., owing to the temporary suspension of quarterly dividends last year from the general depression on the breaking out of the war; but these, it is expected will soon be resumed, after placing the equipment and station property of the road in the most complete condition. The capital is \$650,000. The Funded Debt is \$450,000. The finances of the concern are rapidly taking shape for steady quarterly dividends hereafter, like the other Avenue roads, and the traffic daily improving to a point which will justify liberal returns upon the Stock, besides the prompt payment of interest upon the mortgages.

#### New Railroad System of M. L. D. Girard—Sliding Cars.

This new method, which is said to have attracted the attention and excited the astonishment of the Emperor, so that he condescended to take a ride on the modal road 40 yards long; and which is, of course, occupying the attention of all journals, appears to consist in this: The cars are supported upon hollow sleigh-runners, from which water is forced under a pressure sufficient to lift the weight almost entirely off the rails: the escaping water moreover lubricating the rail. A water turbine is the mode of propulsion suggested, but it is not precisely stated that this was the mode used in the *immortal* experiment. M. Girard says that his last experiments gave a friction of

4.3 kil. (9.48 lbs.) per ton (about 1,236); while, so soon as the water was shut off the friction rose to 550 kil. (1102.37 lbs.) (about  $\frac{1}{2}$ ). Now, according to Gen. Morin's experiments, the friction with water as a lubric is about  $\frac{1}{4}$ . It appears, therefore, that the hydraulic pressure was sufficient to lift 59-60ths of the weight. Make the calculation for an ordinary railroad train, freight or passengers, and see what is the practical value of this "*most important discovery*."—*Journal of the Franklin Institute*.

#### Terre Haute and Richmond Railroad.

This company was chartered on the 6th of January, 1847, with authority to construct a railroad from "some point on the western line of the State of Indiana, through Terre Haute, Greencastle and Indianapolis, to Richmond in the county of Wayne." The capital was fixed by the charter at \$800,000, in \$50 shares, but might be increased at the discretion of the directory. By subsequent arrangement the portion of the line east of Indianapolis was abandoned, and constructed by the Indiana Central Railroad Company. On the 20th December, 1848, the first division of the road, extending from Terre Haute to Greenville, 20 miles, was put under contract. The second division of 20 miles from Indianapolis was commenced on the 20th December, 1849, and the intermediate division on the 10th May, 1850. Track laying was commenced at both ends of the line in the fall of 1851, and on the 16th February, 1852, the road was so far completed as to permit of the passage of trains and was fully opened during the ensuing spring. By resolution of the directors in 1855, the construction account was closed and since that time all improvements and additions to equipment have been charged against income.

The road is 73 miles in length extending from Terre Haute to Indianapolis, Indiana. The equipment consists of 18 locomotives; 17 passenger, 6 baggage, 103 freight, 30 stock, 71 coal, 48 platform, 37 gravel and 13 hand cars.

Capital stock authorized *ad libitum*, in \$50 shares—paid in \$1,381,450, on 27,629 shares.

Funded debt, \$230,000, described as follows:

1st mortgage 7 per cent. coupon bonds (convertible), \$230,000—issued 1st March, 1851, and payable, principal 1st March, 1866, and coupons semi-annually 1st March and 1st September, in New York. Total issue \$600,000, of which \$370,000 has been converted into stock.

Floating debt—none.

Cost of road and equipment, \$1,611,450—no detail. This amount includes the investment of \$25,641 in the Union track and depot at Indianapolis.

#### OPERATIONS IN TRANSPORTATION YEARLY.

Y'rs.	Miles run by trains.				Total.
	Pass'gers.	Freight.	Wood.	Gravel.	
1857..	131,171	83,163	8,506	36,427	259,717
1858..	136,169	75,063	7,138	36,372	254,742
1859..	122,070	75,466	8,845	27,797	234,178
1860..	141,461	107,196	12,413	22,964	284,034
1861..	125,972	98,501	12,698	18,526	255,707

#### PASSENGERS TRANSPORTED YEARLY, 1853-'60.

	Number of Passengers.		
	Through.	Local.	Total.
1853.....	32,155	56,666	88,821
1854.....	42,832	68,306	111,138
1855.....	55,322	65,141	120,463
1856 (11 mos.)..	123,007	66,742	189,749
1857.....	102,715	72,926	175,641
1858.....	66,260	63,163	129,423
1859.....	57,428	67,645	125,073
1860.....	54,647	71,944	126,591
1861.....	42,009	62,593	104,602



## INCOME ACCOUNT FOR THE YEARS ENDING—

	31st December,					30th November,				
	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.
Passenger .....	\$64,707	\$109,131	\$145,923	\$180,194	\$319,076	\$280,177	\$189,097	\$173,008	\$172,804	\$139,678
Troops .....										26,438
Freight .....	36,464	58,245	81,515	91,833	194,612	170,424	164,614	154,178	199,303	175,115
Coal .....						14,956	9,490	10,314	13,137	13,863
Express, mail, etc. ....	4,773	10,600	12,555	15,485	17,647	15,714	17,073	19,797	19,355	22,598
Total earnings....	\$105,944	\$177,976	\$239,993	\$287,512	\$531,335	\$481,271	\$380,274	\$357,297	\$404,599	\$377,692
Train expenses .....	\$17,125	\$26,512	\$25,298	\$28,318	\$39,690	\$60,644	\$53,799	\$49,816	\$55,184	\$51,199
Road repairs .....	7,000	12,985	18,912	21,016	64,886	65,593	48,241	44,679	38,999	31,200
Rolling stock do. ....	1,905	9,556	15,424	23,109	24,349	44,978	42,591	36,667	44,026	42,503
Buildings do. ....				314	4,049	5,884	1,978	1,556	1,668	1,777
Depot expenses .....	2,876	5,283	8,532	9,833	12,724	18,102	15,045	16,178	17,060	17,175
Loss and damage .....	900	1,405	1,151	2,294	2,464	3,112	2,023	2,106	877	2,743
Salaries .....	3,529	9,450	10,219	10,733	9,475	9,100	5,300	5,300	5,700	6,085
Agencies, etc. ....	1,162	1,140	1,133	2,193	2,195	2,671	5,148	6,267	8,312	7,097
Construction, etc. ....						65,109	18,698	9,574	15,392	1,729
Total expenses....	\$34,498	\$66,331	\$80,669	\$97,810	\$159,838	\$275,193	\$193,826	\$175,143	\$187,218	\$161,508
Net earnings ....	\$71,446	\$111,645	\$159,324	\$189,702	\$371,497	\$206,078	\$186,448	\$182,154	\$217,381	\$216,184
Interest paid .....	\$25,586	\$43,822	\$40,963	\$35,291	\$28,474	\$16,950	\$18,052	\$14,426	\$18,245	\$20,321
Dividends .....	25,294	55,256	90,860	96,180	125,342	163,374	137,645	138,895	138,145	138,145
Taxes .....		4,428	3,823	6,084	629	6,256	7,252	7,646	5,739	5,453
Construction .....									2,202	8,970
Surplus to next year....	20,566	8,139	23,678	52,147	217,052	19,498	23,499	21,187	58,050	43,295
	\$71,446	\$111,645	\$159,324	\$189,702	\$371,497	\$206,078	\$186,448	\$182,154	\$217,381	\$216,184

## ABSTRACT OF BALANCE SHEET, 1ST JANUARY, YEARLY.

	31st December,					30th November,				
	1852.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.	1861.
Construction .....	\$1,311,672	\$1,414,285	\$1,439,681	\$1,478,526	\$1,585,809	\$1,585,809	\$1,585,809	\$7,585,809	\$1,585,809	\$1,585,809
Union track .....	13,226	21,241	25,641	25,641	25,641	25,641	25,641	25,641	25,641	25,641
Stocks and bonds .....	12,137	11,400	20,650	20,650	22,775	26,555	26,555	26,030	120,570	121,548
Real estate .....					2,601	2,601	2,601	12,601	11,801	11,600
Material and fuel .....					36,223	55,981	56,800	48,538	46,037	48,902
Bills receivable .....		9,504				61,749	66,588	79,915	78,795	75,745
Sundries .....	4,320	5,916	5,934	5,937			3,802	10,053	4,879	7,479
Treasurer .....	11,465	8,241	24,524	50,402	138,839	78,317	79,194	78,839	96,850	99,077
	\$1,353,020	\$1,470,587	\$1,516,430	\$1,579,155	\$1,811,888	\$1,836,653	\$1,846,990	\$1,867,424	\$1,970,382	\$1,975,801
Share capital .....	\$632,387	\$738,050	\$924,100	\$974,800	\$1,294,450	\$1,361,450	\$1,376,450	\$1,381,450	\$1,381,450	\$1,381,450
6 per cent. bonds, '55.	63,100	28,600								
7 per cent. bonds, '66.	600,000	600,000	456,000	422,000	317,000	250,000	235,000	230,000	230,000	230,000
Bills payable .....	1,283	38,774	32,642	28,121	125	125			46,648	
Sundries .....	10,390	35,858	51,306	49,704	82,356	82,765	69,353	69,696	72,784	73,763
Surplus account .....	45,860	28,705	52,382	104,530	117,957	142,313	166,187	186,278	239,500	290,588
	\$1,353,020	\$1,470,587	\$1,516,430	\$1,579,155	\$1,811,888	\$1,836,653	\$1,846,990	\$1,867,424	\$1,970,382	\$1,975,801

## COST OF ROAD, MILEAGE, EARNINGS, EXPENSES, ETC., YEARLY.

Years.	Cost of Road and Equipm't.	Miles of Road.	Gross Earnings.				Operating Ex-penses.	Earnings less Expenses.	Dividends.	
			Passengers.	Freight.	Mails, etc.	Total.			Am't.	Rate.
1852.....	\$1,324,898	73.00	\$64,707	\$36,464	\$4,773	\$105,944	\$34,498	\$71,446	\$25,294	4
1853.....	1,435,526	73.00	109,131	58,245	10,600	177,976	66,331	111,645	55,256	8
1854.....	1,465,322	73.00	145,923	81,515	12,555	239,993	80,669	159,324	90,860	10
1855.....	1,502,166	73.00	180,194	91,833	15,485	287,512	97,810	189,702	96,180	10
1856.....	1,611,450	73.00	319,076	194,612	17,647	531,335	159,838	371,497	125,342	10
1857.....	1,611,450	73.00	280,177	185,380	15,714	481,271	275,193	206,078	163,374	12
1858.....	1,611,450	73.00	189,097	174,104	17,073	380,274	193,826	186,448	137,645	10
1859.....	1,611,450	73.00	173,008	164,492	19,797	357,297	175,143	182,154	138,895	10
1860.....	1,611,450	73.00	172,804	199,303	32,492	404,599	187,218	217,381	138,145	10
1861.....	1,611,450	73.00	166,116	175,115	36,461	377,692	161,508	216,184	138,145	10
Total .....	\$15,396,612	730.00	\$1,800,233	\$1,361,063	\$182,597	\$3,343,893	\$1,432,034	\$1,911,859	\$1,109,136	94
Average (10 y.)	1,539,661	73.00	180,023	136,106	18,259	334,389	123,203	191,185	110,913	9.4

## The Suez Canal.

According to accounts received from Mr. D. A. Lange, the Suez Canal works continue to be pushed with vigor. The breakwater at Port Said, which presented some difficulties, is now completed, and vessels are able to discharge their cargoes in all weathers. The jetty is being continued. Between the break-water and the shore there remains about 1,800 yards to fill up, and the cargoes of large stone blocks daily sunk in the sea from the quarries at Mex are sensibly diminishing this distance. On land the progress in excavating the canal is alleged to be greater than is generally imagined. 25,000 men are engaged along the line, and the average quantity of earth removed is

550,000 cubic yards per month. It is expected, therefore, that the works will soon be sufficiently advanced to allow the waters of the Mediterranean to flow into the basin of Lake Timsah. Meanwhile a town is being constructed at Timsah, and workmen are employed in laying down the foundations for the quays intended for vessels to load and unload. The inland port of Timsah is to serve as a coaling and watering station for vessels passing through the canal, also for re-victualling, repairing, and careening. The stores along the different stations contain sufficient provisions to feed 50,000 men. Lately a regular direct line of steamers has been organized between Alexandria, Port Said, and Marseilles. The first trial took

place on the 22nd of June, by the steamer Bizantine, and she unloaded 150 tons of merchandise at Port Said in 12 hours, although the weather was boisterous.—*London Times.*

## Horse Railroads.

The Wason Manufacturing Company of Springfield, Mass., have contracted to furnish seven cars for the line of horse railroad between Hartford and Wethersfield. The length of the road is about four and a half miles, commencing at a point near the Spring Grove Cemetery, Hartford, and terminating at the Congregational Church in Wethersfield. The contract for the construction of the line has been made, we understand, with a

Mr. Munson, of New Haven. A vigorous effort will be made to have the road completed and in running order by the 1st of October.

#### Freight Tariffs and Classifications.

A number of engineers and others connected with railroads in Cuba and South America have recently applied to us for information on the charges for, and classification of, freight adopted on our leading lines. Railroading is now so completely a matter of experience, and the system of the North and West is so consolidated through agreements made by their managers, that the differences in point of classifying freight are unimportant. We subjoin that of the New York Central as a sample. Spirits of turpentine, burning fluid and varnish are taken only at the owner's risk. Gunpowder, friction matches will not be received for transportation at all.

#### FIRST CLASS.

Agricultural Implements, by special contract.  
Bath Tubs.  
Baskets, twice first class rates. Books.  
Batting, Blinds, Bonnets.  
Boots and Shoes, Bread, Buffalo Robes.  
Brushes and Brooms, Broom Corn pressed.  
Billiard Tables boxed, owner's risk.  
Bird Cages, boxed, twice first class rates.  
China Ware, in boxes.  
Carriages, well boxed, twice first class rates, owner's risk.  
Cabinet Ware, set up and boxed, twice first class rates.  
Cabinet Ware, knocked down, and well boxed, first class rates.  
Cards, Carpeting, Corks, Confectionery.  
Chairs, boxed, twice first class rates.  
Cigars, boxed and strapped.  
Cassia in mats, Caps.  
Cotton Waste.  
Covers and Seives, Clocks and Weights.  
Demijohns, owner's risk, twice first class rates.  
Dry Goods, in boxes, bales and trunks.  
Empty Barrels.  
Furniture, set up and boxed, twice first class rates.  
Furniture, knocked down, well boxed, first class rates.  
Furniture, not boxed, only taken by special contract.  
Furniture, second-hand, well boxed, accompanied by passengers.  
Farm Wagons, in pieces. Fire Crackers.  
Feathers, Furs, Figs, in drums.  
Fish, (fresh) prepaid.  
Garden Seed, Glass Ware, Window Glass.  
Grapes, in kegs.  
Hides, (dry) loose.  
Household Goods, (not Furniture) well boxed.  
Hair, in sacks. Hats and Caps.  
Ink, in glass.  
Indigo, India Rubber Goods.  
Iron Castings, light, loose, under 300 lbs. each piece.  
Leather, loose, Liquors, in glass.  
Lemons, sacked.  
Looking Glasses boxed, owner's risk breakage.  
Machinery, unboxed. Metallic Coffins.  
Marble, manufactured, owner's risk.  
Mattresses, twice first class rates.  
Mouldings and Picture Frames.  
Mats and Rugs.  
Measures and Tubs, Moss, in sacks.  
Musical Instruments.  
Mineral Water, in glass.  
Nuts, in single sacks.  
Oysters, in kegs and cans (fresh).  
Oranges, sacked. Oil, in glass.  
Paper Hangings, not boxed.  
Pickles and Preserves in glass.  
Pill Boxes, in casks or boxes, twice first class rates.  
Palm Leaves, Peltries, Printing Presses.  
Piano Fortes, owner's risk.  
Porter and Ale in glass.

Paintings and Pictures, well boxed.  
Plate Glass, (owner's risk breakage).  
Printed Matter in sheets, boxed.  
Quicksilver, in iron flasks.  
Rattan, Russia Bristles.  
Refrigerators.  
Steam Boilers, 30 feet and under.  
Sleighs, boxed, twice first class rates.  
Snuff in jars. Sewing Machines, boxed.  
Steam Boilers, over 30 feet, 1½ first class rates.  
Scythe the Snaths, Scales and Scale Beams, not boxed.  
Stoves, owner's risk.  
Sweet Potatoes, Sizing, Stove Pipe.  
Stove Plates, owner's risk, Stationery.  
Traveling Bags.  
Trunks—Tin Ware, boxed, Twine.  
Trees and Shrubby, boxed, owner's risk.  
Trees and Shrubby, baled, 1½ first class rates, owner's risk.  
Toys, boxed, 1½ first class rates.  
Umbrellas, Veneering, not boxed.  
Wagons, children's, not boxed, twice first class rates.  
Wagons and Hobby Horses, knocked down, in boxes and crates.  
Wagons and Hobby Horses, boxed, 1½ first class rates.  
Wax, Wine, in boxes or baskets.  
Whips—Whalebone, Wheelbarrows.  
Wooden Ware, Wagon Felloes and Bows.  
Willow Ware, twice first class rates.  
Woolen Yarn. Wadding. Wire Cloth.

#### SECOND CLASS.

Antimony, crude. Apples, dried.  
Baking Powders, Bed Cord, Bags, Bells.  
Bagging. Bottles. Beeswax Butter.  
Boiler Felting.  
Brimstone, boxes or kegs.  
Burlaps, Berries. Blue Vitriol.  
Candles. Cotton Yarn. Cocoa Matting.  
Cast Iron Grain Mills. Carpet Lining.  
Caster Oil in cans or cases.  
Copper and Brass Vessels, in boxes or casks.  
Cream Tartar in boxes or kegs. Cocoa.  
Coffee, ground, in boxes or barrels.  
Capstans, Cassia, in bags or boxes.  
Clove Stems, in sacks. Chocolate.  
Cotton Waste, pressed in bales.  
Copper, in plates, sheets, bolts, pigs, wire, nails and rods.  
Camphene, Varnish and Burning Fluid owner's risk leakage.  
Cheese, in boxes and casks.  
Caloric Engines.  
Clover and Grass Seed. Copper Bottoms.  
Crockery, in boxes or barrels.  
Congress and Bedford water, in boxes or barrels.  
Chain, cotton, woolen and hempen.  
Cutlery, Chair Stuff, in rough.  
Domestic Sheetting, Shirting, Ticking, and Denims, in original bales.  
Drugs and Medicines.  
Dye Woods, in bags or barrels.  
Duck, Deer Skins, pressed.  
Emery. Extract Logwood.  
Flax Seed, Flax, boxed.  
Gas Fixtures, boxed.  
Ginger, Glue, Gum Copal.  
Groceries, assorted, not otherwise specified.  
Grass and Clover Seed.  
Guns, Rifles and other firearms.  
Hair, pressed.  
Hemp and Shingle Machines.  
Hides, dry, in bales, Honey, Hops.  
Hemp Carpet. Hollow Ware.  
Herrings, in boxes, Hemp, boxed.  
Isinglass.  
Iron, hoop and sheet. Ink, in casks.  
Leather, in rolls and boxes.  
Liquor, in wood.  
Lead, in pipe, bar and sheet.  
Lamp Black, in casks or bbls. Linseed.  
Licorice, stick or root.  
Lithographic Stones, owner's risk.  
Machinery boxed.  
Mustard Seed, in bags or casks.

Moss, pressed in bales.  
Nuts, in double sacks, casks or bbls.  
Oakum, Oil Cloth.  
Plumber's Materials, in boxes or casks.  
Porcelain Ware, in barrels or boxes.  
Paints, in boxes and cans, not otherwise specified.  
Palm Leaf, pressed. Prunes, in casks.  
Printer's Ink, in kegs or barrels.  
Paper, in boxes, Paste Board.  
Printing Paper, Peaches, dried.  
Paper Hangings, in boxes. Pipes.  
Pins, in original boxes.  
Rubber Car Springs, loose.  
Rubber Packing and Hose.  
Raisins, strapped. Rags, in sacks.  
Saddlery, Scythes, Stove Blacking.  
Sardines, in boxes, Shoe Pegs, in bbls.  
Sheep and other Skins, in bales.  
Shot in bags—Sugar, in bags.  
Scales and Scale Beams, boxed.  
Seeds, not otherwise specified.  
Snuff in casks, bbls. or boxes.  
Soap, Castle and fancy.  
Starch in less than 100 boxes.  
Shingle Machines.  
Tobacco, in bales.  
Tobacco, cut, in barrels or boxes.  
Tow, boxed, Type, Tea.  
Veneering, boxed.  
Wood, in shapes. Wrapping Paper.  
Willow Reeds, in bundles. Wool.  
Yarn Carpet, pressed in bales.  
Zinc, in rolls and sheets.

#### THIRD CLASS.

Axes. Anvils, Ale and Beer, in wood.  
Black Lead, in bbls. or boxes, Boiler Flues.  
Brass and Pewter Faucets. Barilla. Bones.  
Bark and Cob Mills. Binders' Boards.  
Cotton, square bales. Chain, loose.  
Cider, in barrels or hhd. Coffee Mills.  
Copper, in boxes and casks. Copying Presses.  
Carriage Springs, Axles and Boxes.  
Cream Tartar, in bbls. and hhd. Crucibles.  
China Ware, in casks. Currants dried.  
Dye Woods, in sticks. Dates.  
Epsom Salts, in barrels.  
Figs in casks or boxes.  
Forks, hay and manure.  
Gum Shellac, original packages.  
Hardware, Hooks and Hinges.  
Hoofs and Horns, Hides, green. Hoes.  
Herrings, in kegs.  
Iron Castings, in boxes.  
Iron Safes, Iron Railing. Iron Facings.  
Iron Shutters. Junk, Jute.  
Lead, in casks or pig. Lime, in casks.  
Lightning Rods, in bundles.  
Madder, in hhd. Millstones, finished.  
Marbles, in casks or boxes. Manilla.  
Mahogany, in board, plank, or scantling.  
Nails and Tacks, in boxes. Nails, in bags.  
Oysters, kegs and cans, pickled.  
Porcelain Ware, in casks or hhd.  
Pickles and Preserves, in cans.  
Pepper and Spices, in bags.  
Pumice Stone, in cks. Rubber Belting.  
Rubber Car Springs, in boxes or casks.  
Spelter, Shot, in kegs. Sand Paper.  
School Slates, boxed. Split Peas.  
Shovels, Spades and Scythes, in boxes.  
Scythe Stones. Shoe Blacking, in bbls.  
Tin Foil in boxes.  
Vinegar. Wire Fencing.  
Wood Screws, in casks or boxes.  
Wire, not otherwise specified.

#### FOURTH CLASS.

Axle Grease. Anchors.  
Alum, in barrels and hogsheds.  
Bleaching Salts, Burr Blocks. Barytes.  
Brimstone, in bbls or hhd. Bath Brick.  
Borax, in barrels or boxes. Barley.  
Coffee, in double sacks. Chain Cable.  
Coffee, single sack, owner's risk. Clay.  
Chain, in casks, Cements, Chalk.  
Car Wheels and Car Axles, Chickory.  
Crockery, in crates and hogsheds.



Copperas, in bbls. or boxes.  
Earthen and Stone Ware, in crates and hog-  
heads. Earth Paints.  
Fish, pickled and dry salted. Fence Wire.  
Guano. Grindstones.  
Gambia, in bags or casks. Gas Pipe.  
Gunny Bags, in bales.  
Honey, in casks or barrels.  
Horse Shoes, in packages.  
Iron, bar, pig, band and boiler.  
Iron Nuts and Rivets.  
Iron Bolts and Washers, in boxes or casks.  
Iron Castings, heavy, 300 lbs. and upwards, each  
piece.

Iron Castings, in casks.  
Licorice, mass, in boxes or mats.  
Locomotive Tire.  
Marble, in blocks, Molasses.  
Millstones, in rough. Mahogany Logs.  
Marble, sawed, owner's risk breakage.  
Nails and Spikes, Nail Rods.  
Oysters and Clams in shell, in barrels, owner's  
risk.

Oil in hhd's. or bbls.  
Plaster.  
Pickles, in bbls. or cks. Putty. Pitch.  
Railroad Chairs and Spikes. Rope. Rice.  
Railroad Iron. Roofing Iron in boxes.  
Rosin, Rigging, Rags, pressed, in bales.  
Salt, Sugar, except in bags. Soda Ash.  
Spirits of Turpentine.  
Starch, 100 boxes and over.  
Stone, unwrought. Sumac. Saltpetre.  
Soda, in kegs, bbls, casks or boxes.  
Saleratus, in kegs, bbls, casks or boxes.  
Salt Cake. Steel, Soap, common.  
Tobacco, in hhd's., unmanufactured.  
Tar, Tin, Tobacco, in boxes or kegs.  
Tallow, Telegraph Wire. Terre Japonica.  
Volute Car Springs, boxed.  
Water Pipes, Whiting. Wire Rope.  
Wool, foreign, pressed.  
White Lead and Zinc Paints, dry and in oil.  
White Lead and Zinc Paints, in cans or kegs,  
boxed.  
Zinc, Sheets, in casks or cases.

The four great East and West lines have agreed upon similar rates between this city and the principal places at the West. These through charges differ from those on the merely local business of each road, being adopted to avoid the evils of competition. We select the rates of freight in cents per 100 lbs. from New York to the following named places by rail, classified as first, second, third and fourth:

	1st class.	2d class.	3d class.	4th class.
Buffalo .....	75	58	42	23
Dunkirk .....	80	61	45	25
Cleveland .....	100	78	57	33
Columbus .....	123	96	70	41
Cincinnati .....	140	110	80	46
Louisville .....	168	133	98	59
Indianapolis .....	146	114	84	48
Detroit .....	105	85	65	38
Chicago .....	149	117	85	50
Galena .....	187	149	112	72
St. Louis .....	193	153	113	68

The distances to these places are not given, because they will be found to vary according to the route selected by the forwarder. Taking that to Buffalo at 450 miles we find that the rate for first class freight is one-sixth; for the second one-eighth; for the third, about one-eleventh, and for the fourth, one-twentieth of a cent per mile.

Respecting the rates for local freights we take the following from the table of the Pennsylvania Railroad Company. The distances given are reckoned from Philadelphia. The sixth column shows the charge on flour per barrel, and the seventh that on salt or plaster per ton of 2,000 lbs., when taken in car loads:

Miles.	1st class.	2d class.	3d class.	4th class.	Flour.	Salt, etc.
Lancaster . 71	23	20	17	14	24	2.00
Columbia . 83	25	21	18	15	28	2.10
Harrisburg . 112	30	25	20	15	30	2.10
Altoona . . 243	71	56	46	36	72	5.35
Pittsburg . 360	71	56	46	36	72	7.20

The rates are the same in both directions.

The annexed rules and regulations adopted by the same company for conducting their freight business will be valuable to many railroad men:

#### PENNSYLVANIA RAILROAD COMPANY'S RULES AND REGULATIONS FOR CONDUCTING THE FREIGHT TRAFFIC.

1. Agents are not allowed to deliver goods unless the freight is paid. The terms of the Company are cash in advance for prepaid freights, and other freights payable on delivery.

2. Articles at the rates mentioned in the Freight Tariff will be taken by the freight line of cars only.

3. All goods and merchandise will be at the risk of the owner after their delivery at the depot to which they are consigned, and must be removed within twenty-four hours of the time of the arrival.

4. The Company will not be responsible for leakage of liquids, breakage of glass or queensware, breakage of looking glasses, glass show cases, picture frames, stoves, castings, or hollow ware, or for injury to furniture, unless the same be proven to have occurred by the neglect or carelessness of the Agents of the Company; nor for injury to the hidden contents of packages; nor for the loss in weight or otherwise of grain and coffee in bags, or rice in tierces; nor for the decay or freezing of perishable articles; nor for damages arising to any article carried, from the effects of heat or cold; nor for the loss of nuts in bags; or of lemons or oranges in boxes, unless covered by canvas; or loss or damage to goods occasioned by Providential causes, or by Fire from any cause whatever, while in transit or at stations. Nor will they guarantee any special dispatch in the transportation of freight over their road or between any local stations on the road.

5. The Company will not be responsible for merchandise, unless receipted for by a duly authorized Agent.

6. All articles must be clearly marked with owner's name, and the station to which they are to be forwarded, and must be in good order when received. Agents receiving goods not in proper condition for shipment, will be responsible for losses; also, for all mistakes of delivery, shipment, or otherwise.

7. Goods in bundles will not be considered as properly packed, and this Company will not be responsible for any loss or damage of parts, or the whole of such packages.

8. Bags containing grain will be returned without charge, but at owner's risk.

9. When articles are designed, after transportation upon this Railroad, to be forwarded by some other Company, or an individual, to their final destination, the duplicate receipt furnished by the consignor must specify the same, and the articles be marked accordingly. This Company will not be responsible for such articles after they are delivered to consignee or connecting line.

10. All articles will be at the risk of the owners, at the several Way Stations and Platforms, where Depot Buildings have not been established by the Company, from the moment such articles are delivered as directed or marked, or until taken into the cars, as the case may be. A release to this effect will be required from shippers of freight to such Stations before goods are shipped.

11. All packages will be subject to charge for cooerage, when necessary.

12. No allowance will be made for deficiency of lemons or oranges, if not covered with canvas.

13. To avoid error, each box, bale, bag, package and cask of merchandise, carried by actual weight, must have the same marked thereon, and errors in overweight of any articles will not be corrected after removal from the Company's possession.

14. The conveyance of Gunpowder and Friction Matches is strictly prohibited.

15. *Specie* will be transported by the Passenger trains only, under the care of the owner, or his authorized agent, at the rate of \$1 per \$1,000.

16. Machinery, Furniture, Stoves, Agricultural Implements, and all similar articles, when not packed in boxes, will always be at owner's risk of breakage, from handling or any other cause, and when transported for a short distance, will be at measurement or special rates. Articles of extraordinary bulk or unusual length will be carried by special contract.

17. Grain, Feed, and similar articles, in bulk, will not be carried except at the risk of the owner, by whom it must be loaded and unloaded. No allowance will be made on delivery for any alleged deficiency in measurement.

18. Releases for articles carried at owner's risk will be required from the shippers.

19. When articles are sent to places where the Company has no Agent, the Freight must always be paid in advance, and the charge will be the same as to the next more distant station, at which the Company has a Freight Agent. Agents will manifest direct to all points named in this Tariff. Goods destined for points on the road not named in this Tariff, will be manifested to next more distant point named, and charge made as above—noting on manifest where the goods are to be left.

20. One day only will be allowed for loading and unloading cars, unless a special agreement to the contrary be made in writing; and whenever a car is suffered to remain unloaded for twenty-four hours, unless otherwise agreed, a charge will be made for the use of the car while standing loaded, at the rate of \$5 per day for each eight-wheeled car.

21. The cars of individuals, if made to connect with those belonging to the Company, and constructed in a safe and substantial manner, (to be approved by the Superintendent,) will be carried at the rate of three cents per ton of 2,000 lbs. per mile for the lading, and one cent per mile for each pair of wheels. A brakeman will be required with every six cars.

22. The cars of the Company, are not used for local business on any other road, except by special contract with the General Superintendent.

#### SPECIAL RATES.

*Packages.*—No single lot or package will be carried for less than 25 cents any distance. First class rates at actual weight will be charged when the amount at this rate exceeds twenty-five cents.

*Carriages* must be securely protected from liability to injury from fire, chafing, or exposure to the weather; when so protected, they will be carried at double first class rates, actual weight, at owner's risk.

*Coal Oil* will be carried at special rates.

*Grain*, in bags or bulk, by full car loads of 18,000 lbs., will be carried at the convenience of the Company at a rate per 100 lbs. equal to one-half the charge for a barrel of flour, according to the above table. Always provided, that grain in bulk, by car loads, consigned to parties in Philadelphia, shall be taken from the Depot of the Company, or from Broad and Market Streets, by the consignee, to private siding or warehouse, and the empty cars to be returned within twenty-four hours, at their expense and risk of loss in measurement. Grain in less quantities than car loads will be charged fourth class rates.

#### LIVE STOCK.

*Live Stock* must be loaded and unloaded by the owners, at their risk and expense, and will be carried at first class rates, in car loads, at the owner's risk of all injury to their animals, from suffocation, maiming themselves or each other, and of escape; or will be carried at reduced special rates, in car loads, when shipped entirely at the owner's risk under a release to the Company; a tariff of which rates and conditions are always to be seen at the different Stations of this Company, and at Railroad Stations throughout the west. In order to obviate all grounds of complaint of the crowding of Live Stock, the owner or his agent must de-

termine how many of them to put into one car, and agree to pay for not less than the weights specified on special tariff for transportation of Live Stock, the Company reserving the right to charge for the actual weight of such load if it should exceed these limits. Owners or drivers will be taken on the train to attend to their stock, free of charge, but at their own risk of personal injury from whatever cause; and they must be subject to the direction of the Conductor of the train.

A single Horse, Mule, Ox or Cow, will not be rated less than 4,000 lbs., and every additional animal 2,000 lbs. until it amounts to the price per car load.

Hogs, Sheep, Lambs, and Calves, in small lots, will not be rated at less than 5,000 lbs.; when over 5,000 lbs., actual weight will be charged until it amounts to the price per car load.

#### Illinois Central Railroad.

The earnings of the Illinois Central Railway for the month of July were \$249,929—by far the largest earnings for July in the history of the road. The July earnings for six years have been as follows:—

July, 1857....\$189,099	July, 1860....\$196,000
July, 1858.... 124,299	July, 1861.... 189,279
July, 1859.... 139,102	July, 1862.... 249,920

The road is now, almost for the first time in its history, out of debt; every dollar of floating debt has been paid off, and no more money will go to pay for renewals or commissions on loans. The funded debt is now \$15,234,000 on 700 miles of railway, and 1,200,000 acres of land yet unsold. The farmers who have settled on the lands of the company are paying up, partly in money and partly in grain, with very remarkable regularity. The receipts for July were \$34,182 in money and 50,000 bushels corn.

#### Condition and Value of Railroad Property in the United States.

The most noticeable, and perhaps most important feature in commercial and monetary affairs, is the steady appreciation in the value and price of the railway property of the country. The earnings of our roads for the present year will vastly exceed those of any former one. This is owing to the increased capacity for production of the Northern States, and to a fortunate demand abroad for their great staples. The past decade, as we have before observed, has been one of preparation; the present will be one of realization. We had first to supply the conditions by which the labor of our people, wherever they might happen to be situated, could be made uniformly productive and profitable. This has been done, and the industry of the nation, that was only a short time ago employed in the construction of our public works, is now almost solely employed in supplying traffic to them. In the mean time, the population of the country has vastly increased, while processes for the abridgment of labor have been multiplied in ten fold greater ratio. All these causes combined have added, almost beyond computation to the wealth of the country. The measure of this increase is the volume of its internal commerce, which is not only beyond all previous experience, but rests on the most solid foundations.

The traffic of the railroads of the North, for the present year, will be greatly increased by the demand abroad for breadstuffs, of which, fortunately, we have very abundant crops. Every arrival from abroad gives us higher and higher quotations for food. The dearth in other countries will be fully made good by the plenty in our own. Our railroads consequently have a clean field before them for a year at least. The demand will continue till another crop, while that now being gathered at home, will require a year for its transportation to market.

During the past year, for the first time, the traffic of our railroads was very large for every month in the year. It never before presented such a degree of uniformity. This was owing to the uniformity of demand abroad for our products. The demand now existing will cause a steady flow outward, the year round, adding not only very largely to the earnings of our roads, but diminishing the expenses in ratio to receipts, by a better distribution of business. This uniformity is particularly noticeable in the earnings of the Erie and New York Central Railroads, a large portion of the increased earnings of which, during the past year, were in the Winter months.

We are accustomed to refer, but we think erroneously, a portion of the increased earnings of our railroads to the closing up of the Mississippi. We think they would have been much larger, had that river been open, from the greater activity of the internal trade of the country. The annihilation of the trade of one-third of it, has greatly diminished that of the portion in which it has been uninterrupted. The closing of this great outlet, fortunately did not seal up the interior to commerce, as artificial outlets came in good time to supply the place of the great natural one. Should this continue closed, the increased productiveness of the Northwest will so far help to make up the injury and loss sustained, as to render it hardly noticeable, although with active internal commerce in every portion of the country, the general result would, of course be vastly greater than that we now witness.

The increased value of railway property is fully reflected in the advance in the market value of their shares and bonds. In very many instances, these have, within the year past, advanced fully one hundred per cent. This appreciation in actual value has exerted a most salutary influence over the public mind of the North, depressed and disturbed as it was by the existence of a civil war of the most formidable proportions. With nearly everything to depress confidence and hope, the constant improvement in our material welfare was a most fortunate circumstance—one, the value of which cannot be overrated—as the material strength of a people is the basis of all others. As our people went along they soon saw that they had nothing to fear, either in reference to their physical condition, or in a lack of means wherewith to prosecute the war. Reverses caused only a temporary depression in the public mind, as it was felt that these only arose from a lack of appreciation of the nation's strength—an error which time would correct before this strength should be materially weakened. Every loss consequently has been instantly repaired, and every defect only served to show the, till then, latent strength and power of the loyal States.

An incidental, but at the same time powerful element in maintaining confidence at home, has been the demand that has existed abroad for food. It was a guarantee that pacific relations with other countries would be maintained. Nations, at the present time, do not rush into wars with want staring a large portion of their population in the face. The better our railroads were employed, consequently, the less likely was the traffic to be interrupted by any violent measures. The market value of their shares and securities was thus influenced by the two most powerful causes that can operate upon the public—very large earnings, and the prospect of pacific relations with those nations whose wants were a great source of the increased profits of the former.

As large as has been the advance in the mar-

ket value of railway property, it has been, in most cases, by no means equal to the increase in intrinsic value. This is not strange considering the low rates to which prices had fallen, and the causes for a long time operating to depress prices. The advance in the aggregate has already equalled hundreds of millions. It takes the public a long time to investigate the vast number of securities upon the market, and to subject their value to substantial tests. These are every day demonstrating the value of some security hitherto neglected, but of real merit; so that with fluctuations somewhat violent which, considering the events of the day we must expect, prices will advance to rates that will be regulated by the prevailing prices for money, instead of depreciating, as they have done upon extraordinary circumstances that had little or nothing to do with their real value.—*Hallett's Financial Circular.*

#### Railroad Earnings—Monthly.

The approximate earnings of the Pittsburg, Fort Wayne and Chicago Railway during the month of July ultimo, compared with the same period last year, were as follows:

From—	1862.	1861.
Freights.....	\$154,830 53	\$104,216 85
Passengers.....	72,586 34	58,009 65
Express.....	2,700 00	2,700 00
Mails.....	7,825 00	7,825 00
Rent of railway.....	7,083 33	7,083 33
Rents.....	202 75	170 50
Miscellaneous.....	445 14	424 05
Total for July.....	\$245,673 09	\$180,429 38
Earnings, Jan'y 1, to June 30.....	1,684,350 68	1,376,421 48

Total earnings to July 31.....\$1,930,023 77 \$1,556,850 86  
Increase for July, \$365,243 71, or 36.1 per cent.  
Average increase to July 31, 1862, 24 per cent.

The earnings of the Norwich and Worcester Railroad for July were as follows:

	1861.	1862.
Passengers.....	\$9,378 35	\$12,853 77
Freight.....	16,287 73	19,641 77
Total.....	\$25,666 08	\$32,495 54
Increase.....		6,829 46

The earnings of the Erie Railway for July, 1862, were.....\$587,009 97  
Do., 1861..... 372,705 59  
Increase.....\$214,304 38

#### Tonnage of the Lake Districts.

The following statement exhibits the total tonnage of the several Lake Districts, on the 30th June, 1862:

Districts, etc.	Total Tonnage.
Burlington, Vt.....	7,774.19
Champlain, N. Y.....	1,791.71
Oswegatchie, ".....	7,332.53
Cape Vincent, ".....	5,228.70
Sack's Harbor, ".....	888.55
Oswego, ".....	55,552.41
Genesee, ".....	2,981.84
Niagara, ".....	774.48
Buffalo Creek, ".....	108,224.00
Dunkirk, ".....	4,274.26
Presque Isle, Erie, Pa.....	7,369.09
Cuyahoga, Cleveland, O.....	82,518.87
Sandusky, ".....	15,850.24
Toledo, ".....	5,468.70
Detroit, Michigan.....	66,887.89
Michillimackinac, ".....	4,747.59
Chicago, Ill.....	85,743.66
Milwaukee, Wis.....	28,048.19

Total Tonnage.....600,456.90

The Grand Total Tonnage of the United States exceeds 5,000,000 tons.



## AMERICAN RAILROAD BOND LIST.

(\*) signifies that the road is in the hands of receivers. (†) that the company is in default in its interest. S. F., Sinking Fund. "var.," that the bonds fall due at different periods

Description.	Amount.	Interest.	Due.	Price.	Description.	Amount.	Interest.	Due.	Price.	Description.	Amount.	Interest.	Due.	Price.
Alabama and Florida:					Chicago and Northwestern:					Galena and Chicago Union:				
Mortgage	\$300,000	7	1867		1st Mortgage (preferred)	1,250,000	7		95	1st Mortgage Coupon	1,971,000	7	'62-'63	102 1/2
Convert. (guar. by Dir.)	150,000	7	1863		1st Mortgage (general)	3,600,000	7		66	1st Mortgage (Extended)	22,000	7	1882	104 1/2
Alabama and Miss. Rivers:					Bonds issued for coupons of do.	756,000	7		31 1/2	2d Mortgage (S. F.) Coupon	1,411,000	7	1875	93 1/2
State (Ala.) Loan	123,171	7			2d Mortgage	2,000,000	6			*Great Western, Ill.:				
Mortgage	109,500	7			Appleton Extension Bonds	184,000	7			1st Mortgage Eastern Division	1,000,000	10		
Alabama and Tenn. Rivers:					Flagg Trust Bonds	245,000	8			" Western "	1,350,000	7		
1st Mortgage convertible	833,000	7	1872		Cincinnati, Hamilton and Dayton:					Hannibal and St. Joseph:				
2d Mortgage	225,705	8	1864		1st Mortgage	394,000	7	1887	100	Missouri State Loan (1st Lien)	3,000,000	6		47
Albany, Vt. and Canada:					2d Mortgage	950,000	7	1880	100	Land Security	5,000,000	7	1881	25
1st Mortgage	500,000	7	1867		*Cincinnati, Wilm. and Zanesville:					Mortgage (convertible)	1,360,000	7	1883	
Albany and West Stockbridge:					1st Mortgage	1,300,000	7	1889		Mortgage (not convertible)	1,200,000	7	1889	
Albany City (S. F.)	1,000,000	6	'65-'76		2d Mortgage	574,000	7			Harrisburg and Lancaster:				
Androscooggin and Kenebec:					3d Mortgage	158,000	7			New Dollar Bonds	601,000	6	1883	103
Million Dollar Loan	468,800	6	'61-'64	70	Income	250,500	7			Hartford and New Haven:				
\$1,000,000 Loan	535,100	6	1890	79	Tunnel Right	1,000,000	7			1st Mortgage	927,000	6	1873	99
Stock, convert. (Coupon)	710,000	6	'63-'66		Cleveland and Mahoning:					Housatonic:				
Atlantic and Great Western:					1st Mortgage	850,000	7		90	1st Mortgage	170,000	6	1877	
Penn. Division, 1st Mortgage	2,500,000	7	1877	77	2d Mortgage	409,000	7			Houston and Texas Central:				
" " 1st Mortgage	4,000,000	7	1875	77	3d Mortgage	344,100	8			State (1st Lien) Loan	210,000	6		
N. York " 1st Mortgage	1,250,000	7	1879	80	Clev., Painesville and Ashtabula:					Mortgage	125,000	7	1886	
Atlantic and St. Lawrence:					1st Mortgage	564,000	7	1861	99	Hudson River:				
Dollar Bonds (Coupon)	988,000	6	1866		2d Mortgage	303,000	7	1862		1st Mortgage	4,000,000	7	'69-'70	106 1/2
Sterling Bonds (Coupon)	484,000	6	1880	97	Special (Sunbury and Erie)	500,000	7	1874		2d Mortgage	2,000,000	7	1860	100
City of Portland Loan (Coups.)	1,500,000	6	'68-'70		Convertible Scrip	300,000	7	1880		3d Mortgage	1,840,000	7	1875	94
Baltimore and Ohio:					Cleveland and Pittsburgh:					Convertible	1,002,000	7	1867	89
Maryland Sterling	3,000,000	5	1838		1st Mortgage (Main Line)	800,000	7	1860	94 1/2	Illinois Central:				
Mortgage Coupon	2,500,000	6	1885	96 1/2	2d Mort. (M. L.) or 1st Extension	1,188,000	7	1873	91	Optional Right bonds	38,000	7	1866	
" " "	700,000	6	1880	99	3d Mort. (M. L.) or 2d Extension	1,165,000	7	1875	82	Construction	10,798,500	7	1875	98 1/2
" " "	1,123,500	6	1875	100	4th Mort. (M. L.) or 3d Extension	1,154,000	7		61	Construction	4,115,000	6	1875	98 1/2
" " "	1,000,000	6	1867	97	Clev., Columbus and Cin.					Eight per cent. bonds	326,000	8	1865	
Balt. City Loan	5,000,000	6	1890		1st Mortgage, Coupon	509,000	7	'64-'90		Indiana Central:				
Bellefontaine and Ind. (1 Jan. '60):					Cleveland and Toledo:					1st Mortgage (convertible)	600,000	7	1866	
1st Mortgage convertible	791,000	7	1866	55	1st Mortgage	299,000	7	1867	65	2d Mortgage	254,500	10		
2d Mortgage	157,000	7	1870		2d Mortgage	219,000	7	1872	65	Income	251,500	10		75
Belvidere Delaware:					3d Mortgage	221,000	7	1862		Indianapolis and Cincinnati:				
1st Mort. (guar. C. and A.)	1,000,000	6	1877		4th Mortgage	521,000	7	1863	75	1st Mortgage	500,000	7	1866	85
2d Mortgage (do.)	500,000	6	1885		Tol., Nor. and Clev. 1st Mort.	293,200	7	1863	75	2d Mortgage	400,000	7		85
3d Mortgage (do.)	581,000	6	1877		Tol., Nor. and Clev. 2d Mort.	27,500	7	1862		Real Estate Mortgage	200,000	7	1868	68
Black River and Utica:					Income	104,400	7	1863	75	Ind., Pittsb. and Clev. (1 Jan. '60):				
1st Mortgage	370,000	7	1869		C. and T. Income Mortgage	174,000	7	1864		1st Mortgage	650,500	7	1870	
Boston Concord and Montreal:					C. and T. Income (convertible)	256,000	7	1864		2d Mortgage	314,000	7		
1st Mortgage	200,000	6	1870		C. and T. Dividend (convert.)	161,495	7	1865	75	Jeffersonville:				
2d Mortgage	300,000	7	1870	91 1/2	C. and T. Income (convertible)	39,000	7	1870		1st Mortgage	272,000	7	1861	75
3d Mortgage Coupons	150,000	6			C. and T. (S. F.) Mortgage	1,545,000	7	1885	96	2d Mortgage	392,000	7	1873	70
4th Mortgage Coupons	200,000	7			Columbus and Xenia:					*Kennebec and Portland:				
Sinking Fund	200,000	6			Dividend (due 1860, '61, '62, '66)	115,900	var.		93 1/2	1st Mortgage (City and Town):	800,000	6	1870	
Boston and Lowell:					Connecticut River:					2d Mortgage	230,000	6	1861	
Mortgage	440,000	6	1873		Connecticut and Passump. Rivers:					3d Mortgage	250,000	6	1862	
Buffalo, New York and Erie:					1st Mortgage	250,000	6	1878		*Kentucky Centr. (Cov. and Lex.):				
1st Mortgage coupon	2,000,000	7	1877	90	Cumberland Valley:					1st Mortgage	160,000	6		
2d Mortgage coupon	380,000	7			1st Mortgage	800,000	6	1876	95	2d Mortgage	260,000	7		
Buffalo and State Line:					2d Mortgage	161,800	8			2d Mortgage (convertible)	1,000,000	7		
1st Mortgage	500,000	7	1866	106	3d Mortgage	109,500	8			3d Mortgage	600,000	7		
Income 1/2 in '59, 1/2 in '62	200,000	7	var.		Dayton and Michigan (1 Ap. '60):					Guaranteed by Covington	200,000	6		
Unsecured	200,000	7	1864		1st Mortgage	300,000	8			Cincinnati (exchanged)	100,000	6		
Special Erie and North-East	149,000	7			2d Mortgage	2,212,000	8			Keokuk, Ft. D. Moines and Minn.:				
Burlington and Missouri:					Dayton and Western:					City of Keokuk, 20 years	400,000	8		
1st Mort. on 1st Division	500,000				1st Mortgage	300,000	7		50	City of Keokuk, (special tax)	150,000	10		
Cairo and Fulton (Mo.):					2d Mortgage		7		40	Lee County, 20 years	150,000	8		
State (Mo.) Loan	650,000	6	'78-'79		Delaware:					Keokuk, Mt. Pleasant and Muscat.				
Camden and Amboy:					1st Mortgage	500,000			80	Lee County	150,000	8		
Mortgage	367,000	6	1864	100	Guaranteed	65,000				City of Keokuk	290,000	8		
Mort. (chgd from Sterl'g)	888,000	5	1864	100	State Loan	170,000				Henry and Louisa Company's	50,000	8		
Mortgage	800,000	6	1849		Delaware, Lackawanna and W'n:					Lehigh Valley:				
Mortgage	1,700,000	6	1875	84 1/2	1st Mortgage	900,000		1871	108	1st Mortgage	1,500,000	6	1870	103
Sterling (£210,000)	1,008,000	5	1864		1st Mortgage (E. Extension)	1,490,000		1875	108	La Crosse and Milwaukee:				
Sterling (£225,000)	1,080,000	6	1864		2d Mortgage	2,515,500		1881	105	1st Mortgage (Eastern Div.)	903,000	†		89
New Loan (1st d \$337,000)	2,500,000	6	1887		Income (due 1862, '65 and '67)	14,101	var.		88	2d Mortgage (Eastern Div.)	1,000,000	†		
*Catawissa:					Detroit and Milwaukee:					1st Land Grant (Western Div.)	4,000,000	†		21
1st Mortgage	1,500,000	7	1865	32	1st Mortgage (convertible)	2,500,000	7	1875		2d Land Grant (Western Div.)	353,000	†		
Cayuga and Susquehanna:					2d Mortgage	1,000,000	8	1866		3d Mortgage (whole road)	1,700,000	†		
1st Mortgage	300,000	7	1865		3d Mortgage (convertible)	750,000	10	1863		Farm Mortgage	1,087,700	†		
Central of Georgia:					4th Mortgage (G. W. R. R.)	500,000	8			Unsecured Bonds	1,785,000	†		
Mortgage	86,067	7	1863		Dubuque and Pacific:					Lexington and Frankfort:				
Central of New Jersey:					New Construction	800,000				Mortgage, due 1864, '69 and '74	130,000	6		
1st Mortgage	1,400,000	7	'65-'70	108	Dubuque Western:					Little Miami:				
2d Mortgage	600,000	7	1875	100	1st Mortgage	344,000	†			Mortgage (Coupon)	1,300,000	6	1883	89
Central Ohio:					Eastern (Mass.):					Long Island:				
1st Mortgage W. Div.	450,000	7	1861	81	Income (due \$75,000 annually)	275,000	6	var.	100 1/2	1st Mortgage	500,000	6	1870	92
1st Mortgage E. Div.	800,000	7	1864	80	2d Mortgage (convertible)	710,000	5	'62-'72	98	Extension Bonds	175,000	7	1890	100
2d Mortgage	800,000	7	1865	64	3d Mortgage (convertible)	450,000	6	1874	104	Long Dock Co.:				
3d Mortgage (S. F.)	950,000	7	1885		1st M. (State) \$75,000 a y'r after '64	500,000	5	var.		Mortgage Bonds	500,000	7	1882	
4th Mortgage (S. F.)	1,365,800	7	1876		East Tennessee and Georgia:					Mortgages on Land	473,809	7		
Charleston and Savannah:					State, 1st Mortgage	970,000				Louisville and Frankfort:				
1st Mortgage (endorsed)	510,000	6			Endorsed by State of Tennessee	150,000				Louisville Loan	174,000			
2d Mortgage	1,000,000	7			Mortgage (ordinary)	790,688				1st Mortgage	248,000			
Cheshire:					East Tennessee and Virginia:					Louisville and Nashville:				
Mort. (1860, '63, '75, and '77)	786,400	7	var.		State, 1st Lien	1,602,000				State (Tenn.), 1st Lien	300,000	6		
Chicago, Burlington & Quincy:					Endorsed by State of Tennessee	200,000				1st Mortgage	2,000,000	7		
Consolidated 1st Mort. (S. F.)	2,172,000	8	1883	110	1st Mortgage (after State)	100,000				Lebanon Branch 1st Mortgage	400,000	7	var.	
Consolidated 2d Mort. (S. F.)	813,000	8	1890	108	Redeemable in Stock	66,950				Memphis Branch 1st Mortgage	500,000	7	var.	
Chic. and Aur. 1st Mort.	399,000	7	1867		Eaton and Hamilton:					McMinnville and Manchester:				
Chic. and Aur. 2d M. (S. F.)	303,000	7	1869		1st Mortgage	757,734	†	var.		State (Tenn.)	372,000	6		
Cent. Mil. Tr. 1st Mort.	392,000	7	1864		Erie and North-East:					Mortgage	24,000	7		
Cent. M. T. 2d M. (Conv.)	245,000	8	1868		Exchanged for Buff. and St. L.	142,000				Mortgage	10,000	6		
Chicago, Alton and St. Louis:					Florida:					Madison and Indianapolis:				
1st Mortgage		†			Internal Improvement (State)	1,655,000	7	1891		Mortgage	600,000	7	1861	83
2d Mortgage		†			Free Land, 2d Mortgage	1,500,000	8	1891		Marietta and Cincinnati:				
3d Mortgage		†			Florida and Alabama:					Mortgage Bonds	225,789	7	1891	90
Chicago and Milwaukee:					Internal Improvement (State)		7	1891		Memphis and Charleston:				
1st Mortgage (convertible)	700,000	7	1874	70	Free Land, 2d Mortgage		8	1891		State (Tenn.) Loan	1,100,000	6	1880	
Real Estate	188,864	7	1868		Florida, Atlantic and Gulf Centr.:					1st Mortgage	1,600,000	7		
Chicago and Rock Island:					Internal Improvement (State)	250,000	7	1891		Memphis, Clarkesv. and Louisv.				

## AMERICAN RAILROAD BOND LIST.

signifies that the road is in the hands of receivers. (t) that the company is in default in its interest. "S. F." Sinking Fund. "var." that the bonds fall due at different periods

Description.	Amount.	Interest.	Due.	Price.	Description.	Amount.	Interest.	Due.	Price.	Description.	Amount.	Interest.	Due.	Price.
Memphis and Ohio:					N. York, Providence and Boston:					Racine and Mississippi:				
State (Tenn.) Loan	\$1,840,000	6			1st Mortgage	\$331,000	6			1st Mortgage (Eastern Division)	\$680,000	8		
Michigan Central:					North Carolina:					1st Mortgage (West'n Division)	767,000	8		
1st Mortgage Sterling	467,489	6	1872	98½	State Loan	2,000,000	6			Raleigh and Gaston:				
1st Mortgage S'g (convertible)	500,000	8	1869	84	State Loan	1,000,000	6			Coupon	100,000		1862	
1st Mortgage (convert.) Dollar	2,698,000	8	1869	108	North-Eastern (S. C.):					Richmond and Danville:				
1st Mortgage (S. F.), convertible	4,434,000	8	1882	108	1st Mortgage	700,000				State (Va.) Loan (34 years)	600,000	6	var.	
Mich. Southern and N'n Indiana:					2d Mortgage	224,500				Guaranteed by State	200,000	7	1875	
Michigan Southern, 1st	850,000	7	1860	100	Real Estate	35,910				Mortgage (Coupon)	250,000	7	1859	
Northern Indiana, 1st	904,000	7	1861	103	Northern Central:					Richmond, Fred. and Potomac:				
Erie and Kalamazoo	300,000	7	1862		Balt. and Susq. R. R. (Coupons)	150,000	6	1866		Sterling (£87,000)	324,006	6	1860	
Michigan Southern, conv.	44,000	7	1863	85½	Md. State Loan (B. and Susq.)	1,500,000	6			Richmond and Petersburg:				
Northern Indiana, conv.	100,000	7	1863	81	York and Cumberland 1st Mort.	175,000	6	1870		Coupon	169,000		1875	
Jackson Branch	128,000	7	1863	88	York and Cumberland 2d Mort.	25,000	6	1871		*Rutland and Burlington:				
Goshen Air Line	1,116,000	7	1868	101	Y. and C. guar. by Balt. 3d Mort.	500,000	6	1877		1st Mortgage	1,800,000	7	1863	33
Detroit and Toledo	684,000	7	1876	86½	N. C. Contract, 2d Mort.	300,000	6	1876		2d Mortgage	937,500	7	1863	1½
1st General Mortgage (S. F.)	3,030,000	7	1885	101½	Construction, 2d Mort.	2,500,000	6	1885	85	3d Mortgage	435,050	7	1863	
2d General Mortgage	2,672,000	7	1877	91	Northern (Ogdensburg):					Sacramento Valley:				
*Milwaukee and Beloit:					1st Mortgage	1,494,000	7½	1859	70	1st Mortgage	400,000	10	1875	
1st Mortgage	630,000	8			2d Mortgage	3,077,000	7½	1861	3	2d Mortgage	329,000	10	1881	
Milwaukee and Chicago:					North Missouri:					Sandusky, Dayton and Cincinnati:				
1st Mortgage	400,000	8			State Loan (30 years)	4,350,000	6			Mortgage	125,000	10	1856	
2d Mortgage	200,000	7			North Pennsylvania:					Mortgage	997,000	7	1866	
*Milwaukee and Horicon:					Mortgage	2,500,000	6	1875	78	Mortgage	1,000,000	7	1875	
1st Mortgage	420,000	8			Chatell Mortgage	360,000	10	1883	101½	Sandusky, Mansfield and N'wark:				
2d Mortgage	600,000	8			Northern (N. H.):					1st Mortgage	1,250,000	7	1866	
Milwaukee and Prairie du Chien:					Mortgage (due 1860, '64 and '74)	219,500		var.		Saratoga and Whitehall:				
1st Mortgage (Coupon)	2,526,000	7	1891	96	Norwich and Worcester:					1st Mortgage	250,000	7	1858	
1st Preferred stock	1,060,000			90	Mass. State Loan	400,000	6	1877		1st Mortgage (R. and W. Br.)	100,000	7½	1856	
2d Preferred stock	1,020,000			74	Mortgage	205,800	6	1860		Seaboard and Roanoke:				
Mississippi Central:					Ohio and Mississippi (O. and Ind.):					1st Mortgage	300,000	7	1860	
1st Mortgage	1,007,363	7			1st Mortgage	2,193,500	†	1858		3d Mortgage	75,000	7	1870	
Mississippi Central and Tenn.:					2d Mortgage	316,995	†			Dividend Bonds	60,000	7	1856	
State (Tenn.) Loan	529,000	6			Construction	4,637,920	†	1858	17	South Carolina:				
Mississippi and Missouri:					Income	3,591,185	†	1858		State Loan	187,000	6	1868	
1st Mortgage (convertible)	1,000,000	7			Orange and Alexandria:					Sterling	183,333	6	1863	
2d Mortgage (S. F.)	400,000	8			1st Mortgage	400,000	6	1866		Sterling	2,000,000	5	1866	
Oakalosa Division	1,425,000	7			2d Mortgage or 1st Extension	1,200,000	6	1875		Southern Mississippi:				
Land Grant	7,000,000	7			2d Extension	600,000	8	1873		1st Mortgage	600,000			
Mississippi and Tennessee:					Pacific (Mo.):					South-Western (Ga.):				
Tennessee State Loan	98,000	6	1885		State (Mo.) Loan	7,000,000	6			1st Mortgage	631,000		1875	
Mississippi State Loan	202,799	6			State Loan (S. W. Branch)	2,900,000	6			*Springfield, Mt. Vern. and Pittab.				
1st Mortgage	171,000	7	1876		Construction	4,500,000	6			1st Mortgage	500,000			
Mobile and Ohio:					Panama:					2d Mortgage	450,000			
City (Mobile) Tax Loan	400,000	6			1st Mortgage Sterling	1,250,000	7	1865	100	*Steubenv. and Ind. (P. C. and C.):				
Tennessee State Loan	674,860	6			2d Mortgage Sterling	1,150,000	7	1872		1st Mortgage	1,500,000	7	1870	
Alabama State Loan	389,410	6			Pennsylvania:					2d Mortgage	900,000	7	1865	
Income	1,508,070	8	61-67		1st Mortgage	4,990,000	6	1880	104½	*St. Louis, Alton and Chicago:				
Sterling	878,035	6	1883		2d Mortgage	2,421,000	6	1875	100½	1st Mortgage	2,000,000	7½		91
Mississippi State Loan	200,970	6			2d Mortgage Sterling	2,126,400	6	1875		2d Mortgage	1,535,000	7½		
Montgomery and West Point:					State Works Bonds	7,100,000	5		87½	3d Mortgage (Income)	1,000,000	10½		
Alabama State Loan	122,622				Pennsylvania Coal Company:					St. Louis and Iron Mountain				
Mortgage (due 1860, '63 and '65)	350,000	6	var.		1st Mortgage	600,000	7	1861		State (Mo.) Aid	3,501,000			
Mortgage	450,000	8	1866		Penobscot and Kennebec:					St. Louis City Subscription	500,000			
Morris Canal and Banking Co.:					Bangor City 1st Mort. (Coupon)	780,000	6	74-75		St. Louis County Subscription	1,000,000			
Mortgage Bonds	655,250	6	1876	99	2d Mortgage (Coupon)	263,800	6	1876		Sunbury and Erie				
Preferred Stock	1,175,000	10		118	3d Mortgage (Coupon)	156,600	6	1871		1st Mort. (Sunbury to W'msp't)	1,000,000	7	1877	94½
Musogee:					Peoria and Oquawka:					Mortgage (half to State)	7,000,000	5	75-78	
1st Mortgage	249,000	7			1st Mort. (W. Ext.) convertible.	500,000	8	1862		Syracuse, Binghamton and N. Y.:				
Nashville and Chattanooga:					1st Mort. (E. Ext.) convertible.	500,000	8	1873		1st Mortgage Coupon	1,400,000	7	1876	
Mortgage (State endorsed)	1,500,000				Petersburg:					*St. Louis, Alton & Terre Haute:				
Chat. and Cleve. Subse. (endors.)	231,000				Mortgage (due 1863 to 1872)	105,000	7	var.		1st Mortgage (convertible)	1,000,000	7½	62-72	92½
*New Albany and Salem:					Petersburg and Lynchburg (S. Side):					2d Mortgage (convertible)	2,000,000	7½	68-70	90
Crawfordsville	175,000	7			State (Va.) Loan (S. F.)	800,000	7			Tennessee and Alabama:				
1st Mortgage	500,000	10			1st Mortgage (1859-70-75)	365,000	6	var.		State (Tenn.) Loan	814,000			
1st Mortgage	2,235,000	6			3d Mortgage (1862-70-72)	375,000	6	var.		Terre Haute and Richmond:				
N. Hav., N. Lond. and Ston'ton:					Special Mortgage (1865-68)	175,000	6	var.		1st Mortgage (convertible)	230,000	7	1866	
Mortgage	450,000	7			Last Mortgage (1861 to 1869)	135,500	8	var.		Toledo and Wabash:				
Mortgage	200,000	6			Phila., Germant'n and Norrist'n:					1st M. (Toledo and Wabash)	900,000	7	1865	93
Extension	100,000	10			Consolidated Loan	274,800				1st M. (L. E. Wab. and St. Louis)	2,500,000	7	1865	93
New Haven and Northampton:					Loan of 1842	100,000				2d M. (Toledo and Wabash)	1,000,000	7	1869	70½
1st Mortgage	500,000		1869		Philadelphia and Reading:					2d M. (Wabash and Western)	1,500,000	7	1869	70½
New Jersey:					Bonds of 1836, (unconvertible)	408,000	5	1867		*Vermont Central:				
Company's (various)	711,000		var.	102½	" 1836, "	192,000	5	1880	99	1st Mortgage Coupon	2,000,000	7	1861	15
New London Northern:					" 1849, "	3,103,600	6	1870	96	2d Mortgage Coupon	1,135,000	7	1867	1½
1st Mortgage	85,000	7		100	" 1861, "	436,000	6	1871		Virginia Central:				
N. Ori'n, Jackson and Gt. North.:					" 1843, "	1,543,300	6	1880	101	Mort. guaranteed by State of Va.	100,000	6	1880	85
State (Miss.) Loan	255,000	6	63-48		" 1844, (convertible)	863,000	6	1880	100½	Mortgage (coupons)	198,000	6	1872	82½
1st Mortgage Coupon	2,665,000	8	1886		" 1848, "	124,000	6	1880	99	Mortgage (coupons)	926,000	6	1884	
N. Ori'n, Opelousa and Gt. West.:					" 1849, "	83,000	6	1880	102	Virginia and Tennessee:				
Louisiana State Loan	641,000	6			" 1857, "	3,586,500	6	1886	84½	State (Va.) Loan	1,000,000	6	1887	
New Orleans City Subscription	1,500,000	5			" 1856, "	1,475,000	7	1886	89½	1st Mortgage	500,000	6	1872	85
1st Mortgage (S. F.)	666,000	8	1889		Bonds and Mortg's—real estate	592,200				2d or Enlarged Mortgage	1,000,000	6	1884	81
New York Central:					Preferred Stock	1,551,800				Salt Works Br. Mort. due '58-'61	203,000	6	var.	
Premium (S. F.) Bonds	7,552,000	6	1883	104½	Phila., Wilmington and Baltimore:					Warren (N. J.):				
Funding (S. F.) Bonds	1,558,000	7	1876	109½	Mortgage Loan	2,300,000	6	1884	99½	1st Mortgage	568,500	7	1875	
Stock Exchange (S. F.) Bonds	680,000	6	1883	104½	Improvement	119,000	6	1863		Warwick Valley, N. Y.:				
Real Estate (S. F.) Bonds	166,000	6	1883	104½	Pittsburg and Connellsville:					1st Mortgage	60,000	7	1880	87½
Real Estate Bonds	301,952	7			City of Pittsburg Bonds	500,000				2d Mortgage	25,000	7	1871	70
Bonds of June, 1854	3,000,000	7	1864	104	Alleghany Co. "	750,000				Watertown and Rome:				
Convertible Bonds	970,000	7	1876	110½	Connellsville "	100,000				Mortgage (new bonds)	800,000	7	1880	
B. and N. F. R. R. (S. F.) Bonds	82,500	6	1883	104½	McKeesport "	100,000				Western (Mass.):				
New York and Erie:					Baltimore City "	94,000				Sterling (£899,000)	4,319,520	5	68-71	
1st Mortgage	3,000,000	7	1867	109½	Baltimore City Stock	906,000				Dollar Bonds	802,000	6	1875	
2d Mortgage	4,000,000	7	1864	108½	1st Mortgage (Turtle Cr. Div.)	400,000	6	1889		Albany City Bonds	1,000,000	6	66-70	
3d Mortgage	6,000,000	7	1883	102½	Pittab'g, Ft. Wayne and Chicago:					Hudson & Boston R. R. Loan	150,000	6		
4th Mortgage	4,900,000	7	1880	93½	1st Mortgage	5,250,000	7	1911	94½	Williamsport and Elmira				
5th Mortgage	1,792,500	7	1883	88	2d Mortgage	5,100,000	7	1911	78½	1st Mortgage	1,000,000	7	1890	85
New York and Harlem:					3d Mortgage	2,000,000	7	1911	63	Wilmington and Manchester:				
1st Mortgage	2,950,000	7	1873	107	Pittsburg and Steubenville:					1st Mortgage	596,000	7	1866	89½
2d Mortgage	1,000,000	7	1864	101	Mortgage	800,000	†	1865		2d Mortgage	200,000	7	1872	
3d Mortgage	862,300	7	1867	83	Potsdam and Watertown:					Wilmington and Weldon:				
New York and New Haven:					1st Mortgage	800,000	7½	64-74		Mortgage, payable in England	443,555	6	1863	
Plain Bonds														



## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

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Years ending.	Railroad.				Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.			
	Main Line.	Lateral and Branch Lines.	2nd Track and Sidings.	Road in progress or projected.	Engines.	Cars.			Property and Assets.		Liabilities.				Balance Total, incl. all other assets and liabilities.	Road operated, incl. road leased, etc.	Mileage run by locomotives with trains.	Earnings.		Price of shares.		
						Passenger.	Freight, etc.		Railroad and Appurtenances.	Rolling Stock.	Invested in foreign works.	Share Capital paid in.	Bonded and Mortgage Debt.	Floating Debt.				Gross.	Net.			
																					No.	No.
M.	M.	M.	M.	No.	No.	No.		\$	\$	\$	\$	\$	\$	\$	M.	M.	\$	\$	p. c.	p. c.		
ALABAMA.																						
30 Jun. '60	65.0			50.6	2	2	19	Alabama and Florida	1,451,336			877,953	503,500	105,255	1,515,704	54.0		101,102	37,866			
28 Feb. '59	30.3			58.1	2	2	19	Alabama and Mississippi	461,505	30,991		335,010	109,500	21,632	518,965	30.3		55,791	31,852			
31 May '60	109.6			57.8	11	9	102	Ala. and Tennessee Rivers	2,261,927	184,906		1,067,006	777,777	240,485	2,476,023	109.6		207,626	111,232			
30 Jun. '59	57.0			171.3				Mobile and Girard	1,500,000							57.0	236,791	76,773	21,006			
1 Apr. '61				67.2	1	2	10	Mobile and Great Northern	590,216			600,431			600,431							
1 May, '61	469.3	13.5		49.4	40	28	502	Mobile and Ohio	12,000,000									1,402,858	695,370	6		
29 Feb. '60	88.5	28.4		209.5	23	14	283	Montgomery and West Point	1,838,718	427,265	100,000	1,419,769	922,622	23,579	2,582,505	116.9		505,156	260,269			
1 May, '61								North East and South West														
ARKANSAS.																						
20 Nov. '58	38.5			301.4				Cairo and Fulton				351,524	446,000	10,725	511,949							
				107.5				Memphis and Little Rock	553,877	*												
30 Dec. '60	22.5							Sacramento Valley	1,493,850			793,850	700,000		1,493,850	22.5		230,251	104,594			
CONNECTICUT.																						
31 July '60	23.8			2.8	4	4	43	Danbury and Norwalk	343,103	159,373		307,010	96,500		319,444	23.8	45,543	77,028	34,866	16		
31 Jun. '61	122.4			15.0	16	20	241	Hartford, Provid. and Fishkill	3,903,455	302,511		1,936,739	1,810,500		4,373,922	122.4	252,906	359,147	149,477			
31 Aug. '61	61.4	1.6		64.5	18	21	302	Hartford and New Haven	3,207,396	254,000	102,888	2,350,000	927,000	13,356	3,908,087	73.0	323,491	712,976	354,136	14	142	
31 Dec. '60	74.0				11	11	240	Housatonic	2,439,775	*	6,247	2,000,000	197,000	52,461	2,585,534	120.0	213,253	319,106	77,035			
31 Dec. '60	57.0			1.3	7	11	179	Naugatuck	1,381,800	*		1,031,800	289,750	21,408	1,342,958	57.0						
31 Dec. '60	62.0			2.6	6	12	29	N. Haven, N. London and Ston.	1,454,040	*		738,538	750,000	156,429	1,644,967	62.0						
31 Dec. '60	46.0	8.8		4.9				New Haven and Northampton	1,400,000	*		922,500	500,000		1,422,500	65.2						
31 Dec. '61	66.0			5.2	7	7	111	New London Northern	686,074			602,138	61,300	24,901	688,562	66.0						
31 Mar. '62	61.3	1.0		63.8	32	74	368	New York and New Haven	4,643,649	710,403		3,000,000	1,890,000		5,626,549	117.4	459,850	808,060	301,979			
30 Nov. '61	59.4	7.0		8.5	14	17	282	Norwich and Worcester	2,613,694	*	200,000	2,122,500	809,300	62,477		66.4		288,512	108,026		48	
DELAWARE.																						
31 Oct. '60	84.3			10.7				Delaware	1,552,257			408,132	870,000	271,877	1,607,684	84.3	136,631	138,970	41,466			
31 Oct. '61	16.2							Newcastle and Frenchtown	704,860		43,525	744,520			5,024	749,544	5.0		22,308	7,915	6 1/2	
FLORIDA.																						
30 Apr. '60	154.2				150			Florida														
30 Apr. '60	32.0			3.0	13.0	3	1	Florida and Alabama	532,791	30,586		191,485	195,000	75,894	619,112	32.0		7,857	5,535			
30 Apr. '60	59.9			5.0				Flo., Atlantic and Gulf Central														
30 Apr. '60	100.0	3.9		10.0	153.5			Pensacola and Georgia								29.4						
GEORGIA.																						
30 Jun. '60	86.7				16	7	124	Atlanta and West Point	1,192,389	*		1,250,000	126,000		1,597,388	86.7		418,036	265,827	8	125	
30 Jun. '60	92.6			8.7	70.9			Atlantic and Gulf—M. Trunk		*						30.0						
31 Dec. '60	53.0							Augusta and Savannah	1,032,200	*		733,700	129,500			53.0		168,998	95,612			
30 Apr. '60	43.5			23.7				Brunswick and Florida	755,000	*		151,887				81.0						
30 Nov. '60	191.0				53	62	697	Central of Georgia (and Bank)	4,366,800	*		4,366,800			6,590,173	229.0	879,468	1,715,025	764,574	10		
31 Mar. '60	171.0	61.0						Georgia (and Bank)	4,156,000	*	1,003,650	4,156,000	312,500			1,159,188	528,043	8	100			
30 Nov. '60	102.5				19	16	171	Macon and Western	1,500,000	*		1,500,000			12,295	1,658,976	102.5	226,241	404,618	212,676	19	72
31 July '59	50.0				7	2	107	Muscogee	774,244	162,534		669,950	249,000			1,026,888	50.0		202,714	110,516	8	
1 May, '58	68.1				3	4	33	Savannah, Albany and Gulf	1,386,634	52,374		1,275,901	10,200		180,621	1,473,140	71.6					
31 July '60	106.1	100.8		16.2	18	22	201	South Western	3,770,425	*		2,921,900	396,500		19,913	3,822,913	228.8		388,853	13		
30 Sep. '59	138.0				52	24	706	Western and Atlantic	5,901,497	*		built and own'd by State.				188.0		832,343	464,541			
ILLINOIS.																						
31 Dec. '61	220.0				50	30	763	Chicago, Alton and St. Louis	10,000,000			8,500,000	4,500,000		10,000,000	220.0		1,098,465	452,693	4		
30 Apr. '61	138.0			26.0	62	31	930	Chic., Burlington and Quincy	6,062,928	1,405,998	2,726,930	4,689,340	3,814,516		10,195,257	168.0		1,514,778	242,564		55 1/2	
31 Dec. '58	45.9				6	14	101	Chicago and Milwaukee	1,799,894	87,869	120,000	988,000	762,865	188,085	2,050,065	45.9	14 mo.	243,282	185,284			
1 Apr. '62	242.0				29.0	36	23	Chicago and Northwestern	11,135,666	456,637		2,955,936	8,085,000		264,676	11,817,627	213.0		849,719	414,828		
31 Mar. '62	181.8				59	57	960	Chicago and Rock Island	7,023,936	*	40,469	5,003,000	1,397,000		7,545,220	228.4	765,949	1,054,704	415,971	3	68	
10 Nov. '58	33.2							Fox River Valley	580,000	*		580,000				84.0						
31 Dec. '61	121.0	138.5		74.5	60	63	1,369	Galena and Chicago Union	8,059,729	1,311,917		6,028,400	3,414,702		10,502,318	261.3	1,123,454	1,720,396	811,185	5	74	
31 May, '61	175.0							Great Western	5,022,926	*		1,600,000	2,391,000			175.0		485,943	181,529			
31 Dec. '61	454.8	252.5			112	94	2,347	Illinois Central	27,492,988	*		15,829,095	15,277,500		172,929	33,504,024	708.3	2,468,023	2,965,758	1,150,903	62 1/2	
					81.5			Illinois River		*												
	148.0							Ohio and Mississippi	4,870,586	*		1,780,295	3,292,403			148.0						
	46.6							Peoria and Bureau Valley		*			600,000			oper. by Chic. & R. Ia.			125,000			
								Peoria and Hannibal		*												
	186.0							Peoria and Oquawka	5,400,000	*		1,569,889	2,200,000			186.0						
31 Dec. '58	100.0							Quincy and Chicago	1,978,555	*		800,000	1,200,000		2,000,000	100.0	oper. by Chic. & R. Ia.		Bur. & Quincy.			
31 Dec. '58	108.5	39.8		12.2	31	30	424	Rock Island Bridge	7,608,958	628,487		3,026,903	6,035,615		741,040	8,865,252	208.3		823,767			
31 Dec. '58	108.5							Terre Haute, Alton & St. Louis		*		1,106,679	1,006,125			108.0						
INDIANA.																						
	108.0				73.0			Cincinnati and Chicago	2,080,433	*												
	29.0							Cincinnati, Peru and Chicago		*												
31 Aug. '57	109.0							Evansville and Crawfordsville	2,233,413		2,750	986,061	1,219,100	51,772	2,283,748	109.0		249,867	119,342			
31 Dec. '60	72.4				19	15	374	Indiana Central	1,667,039	274,081	26,641	610,050	1,178,000	40,550	2,108,011	109.0	369,122	400,397	133,009			
31 Dec. '58	89.8	20.2			23	19	313	Indianapolis and Cincinnati	2,497,952	540,043	25,689	1,689,900	1,367,284	140,689	3,458,108	110.0		448,858	230,834	9	2	
31 Dec. '60	84.0							Ind., Pittsburg and Cleveland	1,896,214	*		835,971	1,023,384	37,219	2,031,942	84.0		277,962	119,745			
31 Dec. '61	78.0			11.0	15	16	119	Jeffersonville	1,553,509	*	278,334	1,015,907	706,000	75,505	2,188,881	108.0	303,161	297,988	121,416			
	59.0							Lafayette and Indianapolis	1,850,000	*		1,000,000	600,000		2,000,000	64.0						
1 Dec. '60	86.0	49.0			23			Madison and Indianapolis	2,667,704	*	356,755	1,648,050	1,285,300	87,969	3,060,125	135.0	201,402	230,563	90,080			
	58.0							Louisv., N. Albany & Chicago	6,000,000	*		2,800,000	3,000,000	2,000,000	6,000,000	288.0		645,327	3710			

## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

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Years ending.	Railroad.				Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.				Price of shares.		
	Main Line.	Lateral and Branch Lines.	2nd Track and Sidings.	Road in progress or projected.	Engines.	Cars.			Property and Assets.			Liabilities.				Balance Total, incl. all other assets and liabilities.	Road operated, incl. road leased, etc.	Mileage run by locomotives with trains.	Gross.		Dividends.				
						Passenger.	Freight, etc.		Railroad and Appurtenances.	Rolling Stock.	Invested in foreign works.	Share Capital paid in.	Bonded and Mortgage Debt.	Floating Debt.	Gross.				Net.						
																				No.		No.			
M.	M.	M.	M.	No.	No.	No.													P. c.	P. c.					
MAINE.																									
31 May, '59	36.5	—	—	—	4	4	21	Androsoggin	757,381	*	—	151,833	444,638	160,910	757,381	36.5	—	—	40,155	24,676	—	—			
31 May, '61	55.0	—	—	—	9	10	128	Androsoggin and Kennebec	2,210,947	*	21,925	457,900	1,748,857	138,817	2,345,574	137.0	—	—	318,505	94,088	—	—			
31 Dec, '60	149.0	—	25.0	—	41	17	349	Atlantic and St. Lawrence	6,788,205	867,734	—	2,494,900	3,472,000	7,000	7,968,475	149.0	—	—	707,144	177,318	6	78			
30 Jun, '59	12.5	—	2.0	—	4	3	45	Bangor, Oldtown and Milford	244,726	*	—	135,000	—	40,576	244,726	12.5	—	—	30,830	Loss.	—	—			
30 Sep, '61	63.0	9.5	8.0	—	12	11	120	Kennebec and Portland	2,871,264	*	—	1,287,779	1,280,000	271,143	2,990,998	109.5	139,963	—	172,113	91,487	—	—			
31 Dec, '59	—	—	—	14.0	—	—	—	Penobscot	328,412	*	—	180,497	300,000	75,000	—	—	—	—	—	—	—	—			
31 May, '61	54.7	—	—	—	4	10	93	Penobscot and Kennebec	1,613,473	104,019	78,014	657,779	1,105,400	95,968	1,859,147	54.7	oper. by	An. & K.	70,566	—	—	—			
31 May, '61	51.3	—	—	—	11	13	118	Portland, Saco and Portsmouth	1,494,792	*	5,208	1,500,000	—	—	1,500,000	51.3	169,475	245,348	115,732	6	104				
31 May, '59	37.0	—	—	—	—	—	—	Somerset and Kennebec	783,763	*	—	169,200	556,600	—	—	—	—	—	55,403	28,404	—	—			
31 May, '61	18.5	—	—	33.5	—	—	—	York and Cumberland	1,090,000	*	—	370,000	450,000	270,000	1,090,000	18.5	—	—	26,386	—	—	—			
MARYLAND.																									
30 Sep, '60	279.6	7.2	—	—	235	124	3,272	Baltimore and Ohio	21,314,042	3,604,731	3,579,907	13,118,902	10,781,833	566,070	31,241,011	256.8	—	3,922,203	2,305,788	6	65				
30 Sep, '60	30.0	—	—	—	7	33	167	Washington Branch	1,650,000	*	—	1,650,000	—	—	1,650,000	30.0	187,427	462,880	290,840	9	100				
31 Dec, '61	139.0	4.0	16.4	—	41	39	1,410	Northern Central	7,562,721	666,010	224,798	2,260,000	5,150,000	498,028	9,308,402	155.0	744,961	1,417,977	736,145	—	—				
MASSACHUSETTS.																									
30 Nov, '61	21.2	—	2.0	—	6	4	80	Berkshire	500,500	100,000	—	600,000	—	—	601,360	oper. rat. by	Housat.	42,000	7	—	—	—			
30 Nov, '61	26.7	1.8	43.4	—	21	29	596	Boston and Lowell	2,428,592	*	—	1,830,000	440,000	22,382	—	57.7	—	449,051	128,733	7	93				
31 May, '61	74.3	8.8	49.7	—	32	54	606	Boston and Maine	4,300,849	*	465,758	4,076,974	—	86,655	—	118.3	—	776,065	315,071	6	113				
30 Nov, '61	47.0	7.0	32.5	—	22	27	210	Boston and Providence	3,057,900	102,100	—	3,160,000	—	122,720	—	61.8	—	688,871	272,429	8	116				
30 Nov, '61	44.6	24.0	60.1	—	30	59	295	Boston and Worcester	4,301,025	437,416	100,000	4,500,000	—	126,104	—	33.6	—	928,932	408,594	8	120				
30 Nov, '61	46.0	1.1	2.7	—	7	10	109	Cape Cod Branch	907,761	123,864	—	681,689	163,400	—	47.2	—	95,871	34,072	—	—	—				
30 Nov, '61	50.0	2.3	8.8	—	12	13	331	Connecticut River	1,614,385	187,558	—	1,591,100	300,000	—	52.3	—	250,836	122,956	6	91					
30 Nov, '61	44.2	36.4	25.3	—	28	47	429	Eastern	3,985,684	315,165	264,102	2,883,400	1,885,000	34,000	4,908,862	120.7	432,100	565,939	246,402	4	72				
30 Nov, '61	19.9	1.3	3.8	—	—	—	—	Essex	742,592	4,416	—	299,107	280,261	197,428	776,796	—	—	56,000	10,188	—	—				
30 Nov, '61	50.9	30.9	73.5	—	29	28	655	Fitchburg	3,189,851	350,149	—	3,540,000	—	—	—	71.6	—	543,158	217,054	6	103				
30 Nov, '61	14.0	—	2.4	—	3	3	37	Fitchburg and Worcester	293,658	40,226	—	217,825	55,450	5,900	333,884	26.4	—	33,820	7,663	—	—				
30 Nov, '61	25.0	—	3.0	—	—	—	—	Hampshire and Hampden	596,651	—	—	292,950	308,014	97,706	—	oper. by N. H. & N. H.	—	—	—	—	—				
30 Nov, '61	12.3	—	2.3	—	2	3	27	Lowell and Lawrence	323,583	90,275	—	200,000	75,000	15,656	363,158	oper. by B. and L. V.	—	—	—	—	—				
30 Nov, '61	14.5	17.2	—	—	12	12	824	Nashua and Lowell	658,920	95,653	—	600,000	—	—	—	27.7	—	204,374	48,542	8	116				
30 Nov, '61	20.1	1.5	1.0	—	7	16	146	New Bedford and Taunton	553,014	—	—	600,000	213,000	108,500	—	21.6	—	123,015	24,907	2	53				
30 Nov, '61	27.0	—	2.4	—	—	—	—	Newburyport	697,386	—	—	220,340	234,900	140,902	—	—	—	—	—	—	—				
30 Nov, '61	21.5	—	0.3	11.5	—	—	—	N. York and Boston Air Line	744,130	—	—	283,037	459,693	133,585	—	—	—	18,291	—	—	—				
30 Nov, '61	79.5	7.7	26.5	—	27	46	358	Old Colony and Fall River	3,434,164	*	—	3,015,100	81,000	121,778	—	87.3	—	505,320	219,608	6	107				
30 Nov, '61	18.6	—	0.7	—	1	2	1	Pittsfield and North Adams	432,430	11,247	—	450,000	—	—	—	—	—	36,538	19,060	—	—				
30 Nov, '61	43.4	1.0	14.9	—	12	18	308	Providence and Worcester	1,442,470	256,521	39,800	1,600,000	147,000	—	—	44.4	—	308,228	139,447	8	107				
30 Nov, '61	16.9	—	1.7	—	3	3	3	Salem and Lowell	381,470	82,543	—	243,305	226,900	270	—	oper. by B. and L. V.	—	—	—	—	—				
30 Nov, '61	11.5	—	0.4	—	2	7	17	South Shore	462,167	39,426	—	259,685	150,000	2,768	—	11.5	—	50,155	11,578	—	—				
30 Nov, '61	21.9	—	1.1	—	—	—	—	Stockbridge and Pittsfield	448,700	—	—	448,700	—	—	—	oper. by Ho	usaton.	31,409	7	—	—				
30 Nov, '61	11.1	0.6	1.1	—	7	18	144	Taunton Branch	250,000	—	—	250,000	—	—	—	11.7	—	129,091	16,204	7	100				
30 Nov, '61	6.1	—	—	36.5	—	—	—	Troy and Greenfield	—	—	—	—	—	—	—	oper. by T.	and B.	200,648	95,739	—	—				
30 Nov, '61	69.0	8.0	5.5	—	11	8	192	Vermont and Massachusetts	3,268,415	*	—	2,214,225	991,125	—	—	77.0	—	1,894,568	812,997	8	129				
30 Nov, '61	156.0	17.3	118.1	—	72	69	1,183	Western (incl. Alb. & W.S. etc.)	11,135,152	*	—	5,150,000	6,271,520	75,354	14,242,462	217.9	—	1,894,568	812,997	8	129				
30 Nov, '61	45.7	—	9.2	—	10	8	149	Worcester and Nashua	1,278,895	*	—	1,141,000	150,000	812	—	45.7	—	195,669	83,188	5.3	55				
MICHIGAN.																									
1 Jun, '59	17.3	—	—	—	2	2	1	Bay de Noquet and Marquette	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
30 Sep, '59	57.0	—	—	—	—	—	—	Chic. Detroit & Can. G. T. Junc.	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
30 Sep, '60	188.0	—	—	—	—	—	—	Detroit and Milwaukee	8,270,623	647,596	—	2,950,000	4,250,000	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	Flint and Pere Marquette	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	Grand Rapids and Indiana	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
31 May, '62	234.8	28.4	—	183.0	98	85	2,569	Michigan Central	12,487,239	*	1,122,764	6,057,710	7,999,480	—	14,371,173	329.3	1,338,668	2,361,241	1,212,088	3	67				
31 Mar, '62	246.0	281.0	—	—	83	104	985	Mich. S't'n & N't'h'n Indiana	13,616,401	1,644,259	2,404,161	9,018,200	8,750,707	219,687	18,988,595	527.0	1,775,728	2,250,518	1,137,548	—	—	—			
—	—	—	—	—	—	—	—	Port Huron and Milwaukee	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
MINNESOTA.																									
—	—	—	—	—	—	—	—	Minnesota and Pacific	—	—	—	—	600,000	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	Southern Minnesota	—	—	—	—	575,000	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	Minneapolis and Cedar Rapids	—	—	—	—	600,000	191,130	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	Minnesota Transit	—	—	—	—	500,000	—	—	—	—	—	—	—	—	—			
—	—	—	—	—	—	—	—	Root River Valley	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
MISSISSIPPI.																									
30 Apr, '60	230.0	—	—	—	25	22	336	Mississippi Central	4,966,022	756,292	—	2,000,961	2,554,732	895,992	6,331,899	239.0	—	—	584,342	328,092	—	—			
31 Oct, '59	71.4	—	—	—	27.8	7	4	Mississippi and Tennessee	1,254,																



## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

An asterisk (\*) occurring in the column headed "Rolling-Stock," signifies that the cost is included in that of "Railroad and Appurtenances." A dash (—) signifies "nil." Running dots (....) signify "not ascertained." Land-Grant Railroads are in *italics*.

Years ending.	Railroad.				Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.				Dividends.	Price of shares.					
	Main Line.	Lateral and Branch Lines.	2d Track and Sidings.	Road in progress or projected.	Engines.	Cars.			Railroad and Appurtenances.	Rolling-Stock.	Invested in foreign works.	Property and Assets.				Liabilities.				Balance Total, incl. all other assets and liabilities.	Road operated, incl. road leased, etc.	Mileage run by locomotives with trains.			Gross.	Net.			
						Passenger.	Freight, etc.					Share Capital paid in.	Bonded and Mortgage Debt.	Floating Debt.	Total.														
M.	M.	M.	M.	No.	No.	No.																							
NEW YORK.																													
30 Sep. '61				140.0				Albany and Susquehanna	698,677			647,191		17,239	664,428														
30 Sep. '60	32.9		3.3		5	12	53	Albany and Vermont	1,557,502	136,038		439,005	1,575,099	50,000	2,388,369														
30 Sep. '61	38.0		6.0					Albany and West Stockbridge	2,388,369			1,000,000	1,388,369		2,388,369														
30 Sep. '61	14.8		1.6					Blossburg and Corning	496,061	*		250,000	220,000		470,000														
30 Sep. '61	28.3		9.3					Brooklyn Central and Jamaica	629,458	106,697		492,050	161,480	97,690	750,220														
30 Sep. '61	14.0		26.9	2.0	169			Brooklyn City	1,064,289	284,337		1,000,000	174,000	30,000	1,204,000														
30 Sep. '61	68.3		14.9	18.5	28	32	402	Buffalo, New York and Erie	3,165,147		208,817	850,000	2,412,534	212,072	3,633,579														
30 Sep. '61	34.6		14.5		28	32	323	Buffalo and State Line	2,267,838	521,376		1,960,600	1,049,000		3,009,600														
30 Sep. '61	17.3		38.1					Cayuga and Susquehanna				343,500	300,000	41,600	685,100														
30 Sep. '61	17.3		2.1					Chemung	400,000	*		380,000			380,000														
30 Sep. '61	46.8		2.9					Elmira, Jefferson & Canand.	500,000			500,000			500,000														
30 Sep. '61	17.3		3.0					Hudson and Boston (West'n)	175,000			175,000			175,000														
30 Sep. '61	144.0	4.0	115.0		61	117	688	Hudson River	10,709,154	1,340,445		3,758,466	9,137,000	773,411	13,668,877														
30 Sep. '61	94.0		6.5		15	40	120	Long Island	2,566,328	354,611		1,862,715	777,998	2,680	2,633,393														
30 Sep. '61	297.8	258.1	313.8		211	237	3,171	New York Central	26,267,149	5,257,977	921,131	24,000,000	14,613,005	209,356	41,045,289														
30 Sep. '61	446.0	129.0	286.0		220	142	2,894	New York and Erie	31,008,278	4,188,923		11,000,000	25,326,505	2,074,795	38,401,300														
30 Sep. '61	8.0				2	6		New York and Flushing	24,412	34,750		120,000	135,000	6,000	261,000														
30 Sep. '61	130.7	4.2	29.0		54	78	448	New York and Harlem	7,385,739	650,804		5,717,100	5,537,664	43,789	11,298,553														
30 Sep. '61	99.0							Niagara Bridge and Canard.	1,000,000			1,000,000			1,000,000														
30 Sep. '61	118.0	3.7	17.7		28	14	450	Northern (Ogdensburg)	4,091,429	725,322		4,571,900		4,571,900															
30 Sep. '61	35.9		2.2		6	10	49	Oswego and Syracuse	718,285	82,629		396,340	213,500	4,875	614,715														
30 Sep. '61	75.3		2.2		6	4	33	Potsdam and Watertown	1,529,508	71,518		665,419	1,000,000	192,748	1,558,167														
30 Sep. '61	25.2		2.0		6	13	70	Rensselaer and Saratoga	762,990	157,048		610,000	249,750		859,750														
30 Sep. '61	18.4		1.2	31.3	1	1	30	Rochester and Genesee Valley	655,249	1,776		557,600	150,000	13,480	721,080														
30 Sep. '61	18.0		1.0		2	3	10	Rocketts Harbor, Rome & N.Y.	75,240	1,322		30,889		57,262	88,151														
30 Sep. '61	21.0		1.5		1	1	10	Saratoga and Schenectady	480,684			300,000	73,000		873,080														
30 Sep. '61	40.8	6.6	3.9		8	11	84	Saratoga and Whitehall	824,623	77,584		500,000	376,000	15,398	891,398														
30 Sep. '61	13.0		0.3		2	6	6	State Island	267,159	36,443		63,102	193,687	70,919	327,708														
30 Sep. '61	81.0		7.6		13	12	117	Syracuse and Binghamton	2,857,713	2,654		1,200,130	1,643,153	113,789	2,957,022														
30 Sep. '61	34.9		3.5		10	9	126	Troy and Boston	1,371,576	198,937		606,911	808,500	271,097	1,686,508														
30 Sep. '61	6.0							Troy and Greenbush	258,835	36,073		274,400																	
30 Sep. '61	2.1							Troy Union	752,001			30,000	680,000		710,000														
30 Sep. '61	34.9			2.6	51.3	4	39	Utica and Black River	837,656	32,755		811,560			811,560														
30 Sep. '61	5.3			5.0				Warwick Valley	141,748			96,000	45,500	11,625	153,125														
30 Sep. '61	96.7		11.0		16	18	282	Watertown and Rome	1,948,605	327,304		1,499,000	730,500	101,947	2,330,947														
NORTH CAROLINA.																													
31 May, '60	94.9		6.4					Atlantic and North Carolina	2,157,503	*		1,545,225	400,000	276,372	2,419,401														
31 May, '60	223.0							North Carolina	4,235,000	*		4,000,000			223.0														
31 May, '60	97.0							Raleigh and Gaston	1,240,241	*		973,300	126,200		1,099,500														
30 Sep. '60	161.5	15.0			23	18	182	Wilmington and Manchester	2,632,737	*	232,900	1,130,470	1,045,000	61,300	2,984,500														
30 Sep. '60	161.9				24	32	144	Wilmington and Weldon	2,869,223	*	107,000	1,340,213	791,055	102,391	3,114,954														
15 Mar. '60	81.0	3.0		102.5				Western North Carolina	2,000,000	*	4,700	200,212		70,860	364,072														
OHIO.																													
31 Dec. '60	118.2				17	12	208	Allegheny and Great Western	613,231	*		866,939		77,294	3,256,750														
1 Aug. '61	137.0				41	39	608	Bellefontaine and Indiana	3,027,981	*	10,000	1,859,813	1,256,750	11,660	6,810,432														
1 Mar. '62	60.3				22	28	432	Central Ohio	5,579,508	922,670	106,133	1,628,356	3,673,000	1,126,458	6,810,432														
30 Sep. '60	30.0				22	28	432	Cine, Hamilton and Dayton	2,918,727	504,892	79,947	2,155,800	1,344,000		3,818,784														
1 May, '60	131.8				69.1	16	19	Cine, and Indianapolis June.	6,250,841	*		2,441,176	3,032,000	228,973	5,705,123														
31 Dec. '60	136.4	5.8			31.0	16	19	Cine, Wilmington and Zanees	4,029,200	614,411	512,333	4,746,100	519,000	4,201	5,705,123														
31 Dec. '60	67.0				18.0	12	11	Cleveland and Columbus and Cine.	2,500,017	268,303	298,971	1,155,152	1,693,300	304,182	3,341,020														
31 Dec. '61	95.4	1.2	37.9		30	42	470	Cleveland and Mahoning	3,966,537	*		3,000,000	1,233,000		3,966,537														
30 Nov. '60	101.0	102.5			42			Cleveland and Ashabula	9,320,288	*		5,942,368	1,918,325	658,821	9,061,102														
31 May, '62	109.2	79.4			32	45	481	Cleveland and Toledo	6,699,373	504,420	95,679	5,343,800	3,850,595	148,660	6,699,373														

## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

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Years ending.	Railroad.				Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.				Dividends.	Price of shares.
	Main Line.	Lateral and Branch Lines.	2d Track and Sidings.	Road in progress or projected.	Engines.	Cars.			Property and Assets.			Liabilities.				Balance Total, incl. all other assets and liabilities.	Road operated, incl. road leased, etc.	Mileage run by locomotives with trains.	Earnings.					
						Passenger.	Freight, etc.		Railroad and Appurtenances.	Rolling Stock.	Invested in foreign works.	Share Capital paid in.	Borrowed and Mortgage Debt.	Floating Debt.	Gross.				Net.					
																				No.	No.			
31 Oct. '61	59.0	13.0	5.0	88.5	8	5	59	PENNSYLVANIA, (Continued.)	2,828,895	90,803		1,756,436	1,500,000	85,312	3,426,836	22.0	11,408	70,228	21,217					
31 Dec. '61	467.5	68.7		11.0	104	80	1,261	Pittsburg, Ft. Wayne & Chicago	17,002,121		31,408	6,249,433	10,264,995	1,847,325	18,999,551	467.5	2,434,641	3,031,787	1,209,721		31			
30 Sep. '59	31.0							Pittsburg and Steubenville	1,947,462			1,221,277	280,000											
30 Sep. '59	64.0							Schuylkill and Susquehanna	1,258,700			1,258,700	97,000		1,355,700	54.0								
31 Mar. '61	9.2	15.3	14.9					Schuylkill Valley	673,616			568,150			573,616	24.5								
31 Dec. '59	28.0	1.2	2.0		4	1	445	Shamokin Valley & Pottsville	1,241,487	95,888	363,004	864,450	789,970	60,821	1,724,227	148.0								
30 Nov. '59	148.0							Sunbury (Phila.) and Erie	6,393,712	107,252		4,506,920	4,369,070	861,271	10,169,869	148.0					16			
30 Sep. '59	29.6	6.5	31.9		8	3	127	Tioga	703,349	85,932		97,550	396,000		29.6									
30 Sep. '59	26.4		2.1		4	11	9	Westchester and Philadelphia	1,410,638	74,677		682,170	944,169	52,434	1,679,301	26.4								
30 Sep. '60	73.0		6.0		16	8	126	Williamsport and Elmira	4,050,314			1,500,000	2,200,000	293,895		73.0	199,878	238,420	860,339		13			
1 Jan. '60	50.0		2.0		12	17	103	RHODE ISLAND.																
30 Nov. '61	13.6		0.5		3	3	6	N. Y., Providence and Boston	2,158,000			1,508,000	276,800			62.0	240,449	331,522	106,782		55			
								Providence, Warren & Bristol	448,666			437,917	8,500			13.6		26,454	6,914					
31 Dec. '58	13.2	1.5		182.4	2		26	SOUTH CAROLINA.																
31 Dec. '58	54.9			47.4	4	3	21	Blue Ridge	2,126,539			1,016,515	217,577		2,134,092	13.2								
31 Dec. '58	109.6							Charlotte and Savannah	801,615	34,372	250,000	706,365	195,266	197,905	1,099,536	61.9								
	40.3				13	9	176	Charlotte and South Carolina	1,719,045			1,201,000	384,000			109.6								
1 Jan. '59	143.2	21.3						Cheraw and Darlington	600,000			400,000	200,000		49.3									
31 Aug. '58	22.5							Greenville and Columbia	2,439,769	324,161		1,429,008	1,145,000	345,548	2,919,554	164.5								
31 July '58	32.0							Kings Mountain	196,230			200,000			200,000	32.0								
28 Feb. '59	102.0							Laurens	543,403			400,000	106,218		575,729	102.0								
31 Dec. '60	136.0	106.0						North-Eastern	2,011,652			985,743	960,410	108,172	2,057,325	136.0								
31 July '58	26.1							South Carolina																
								Spartanburg and Union								26.1								
30 Sep. '60	47.6							TENNESSEE.																
1859.				17.0	2		14	Central Southern (Tenn.)	1,021,439	58,133		505,214	514,000	99,110	1,137,707	47.6								
1859.	30.0							Edgemoor and Kentucky	857,947			333,204	612,000	60,900		30.0								
1859.	140.0							East Tennessee and Georgia	3,637,367			1,289,673	2,020,000	200,000		140.0								
1859.	271.6	19.4	20.0					East Tennessee and Virginia	2,310,033	156,264		536,654	1,902,000	390,407		130.3	150,142	297,806	149,167					
1859.	271.6	16.0	20.0	3.9	9	6	242	Memphis and Charleston	5,986,578	878,069	129,364	3,809,949	2,659,000	260,112	7,627,797	291.0								
1859.	100.0							Memphis and Ohio	2,259,267	141,144		570,000	1,361,000	145,000										
1859.	59.0							Memphis, Clarksville & Louisv.	2,000,000	100,500		298,721	740,000											
1859.	47.4							Mississippi and Tennessee	1,137,400			798,235	554,949	319,518		59.4	69,870	177,256	60,029					
1859.	34.2							Mississippi Central and Tenn.	892,710	82,908		317,447	632,500	22,360		47.4	54,175	83,129	44,666					
30 Nov. '60	149.7	44.0	7.9					McMinnville and Manchester	533,807	66,516		144,894	406,000	5,000		34.2	30,065	28,808	13,892					
1859.								Nashville and Chattanooga	3,632,882			2,056,544	1,731,000		159.0		784,118	337,384						
1859.	45.8							Nashville and North-western				595,922	860,000	204,544		45.8	57,950	127,958	87,243					
1859.	30.0							Tennessee and Alabama	70,016	76,016		216,962	413,000	408,477		30.0		1,248						
								Winchester and Alabama																
								TEXAS, (all aided by State.)																
								Buffalo Bayou, Braz. & Col'do																
								Galveston, Houston & Henderson																
								Houston and Brazoria	1,250,000			275,000	240,000	171,560		60.0	31,300	32,670						
1 May '60	70.0							Houston and Texas Central	4,232,345			455,000	975,000	369,000		70.0	102,200	282,846	196,568					
								San Antonio & Mexican Gulf								25.0								
								Southern Pacific								28.0								
31 May, '61	90.7							VERMONT.																
31 Aug. '60	119.6							Connect. & Passumpsic Rivers	1,514,132	193,422		1,280,400	800,000	60,589		90.7	118,219	183,750	92,683		80			
31 Aug. '60	62.0							Rutland and Burlington	3,989,708	617,743		2,233,376	3,172,550	979,119	6,385,045	119.6		349,440	334,368	113,318				
31 Aug. '60	119.0							Rutland and Washington	1,771,683			950,000			62.0									
31 Aug. '60	47.0							Vermont Central	4,402,055			5,000,000	3,863,000	1,423,299	10,276,299	102.0								
31 Aug. '60	23.7							Vermont and Canada	1,350,695			1,350,000			1,380,695	23.7								
31 Aug. '60	54.0	10.5						Vermont Valley	1,212,274	89,612		516,164	793,200		54.0									
								Western Vermont	1,083,500			332,000	700,000		1,083,500	54.0								
31 Aug. '59	41.3							VERMONT.																
30 Sep. '59	77.8	8.9	3.8	105.6	9	5	221	Alex., Loudoun & Hampshire	1,492,194	42,000		1,403,018	36,188	88,131	1,534,194	113.7								
30 Sep. '59	79.2							Manassas Gap	2,942,548	210,680		2,969,861	775,500	118,789		79.2								
30 Sep. '59	103.5							Norfolk and Petersburg	2,006,873	122,156		1,500,124	590,610	155,161	9 months	103.5								
30 Sep. '59	79.2							Northwestern Virginia	5,322,150			468,605	5,719,229		103.5									
30 Sep. '60	88.3	68.4	10.0					Orange and Alexandria	2,063,655	2,517,500		2,063,655	2,517,500	590,056		103.5								
30 Sep. '59	123.3	10.1						Petersburg and Lynchburg	3,040,636	374,996		1,365,290	1,851,500	292,842	4,745,256	137.7								
30 Sep. '59	59.2	21.3						Petersburg and Roanoke	1,223,526			883,200	102,500	5,799	1,486,527	80.5								
30 Sep. '60	140.5	2.7	12.0					Richmond and Danville	3,726,037			1,981,197	1,200,000	75,908	6,755,655	143.2								
30 Sep. '59	75.1							Richm., Frederick & Potomac	1,985,679			1,041,880	643,960	96,828		75.1								
30 Sep. '59	22.2	2.8	5.1					Richmond and Petersburg	1,222,523			835,750	204,808											



**New York Stock Exchange.**  
Actual Sale Prices for the week ending Aug. 20.  
Th. 14. F. 15. Sat. 16. M. 18. Tu. 19. W. 20.

FEDERAL STOCKS:—					
U. S. 5s, 1871	88½				
U. S. 5s, 1874	88½	90	89½	90	91
U. S. 5s, 1885					94
U. S. 5s, 1881, reg.	100½	100½		101½	101
U. S. 5s, 1881, cou.	100½	101	100½	101½	101½
U. S. 5s, 1882					98½
U. S. 5s, 1887	98			98½	99½
U. S. 5s, 1888				98½	99½
Treasury 7 3-10 Notes 103½	103½	104	104½	105½	104½

STATE STOCKS:—					
California 7s	97	97		97½	
Georgia 6s	78	78	78		
Illinois Coupon bonds 93½	98	98			99½
" Canal bonds					
Illinois War Loan	97½		97½		
Indiana War Loan					
Kentucky 6s	94				
Louisiana 6s					
Maryland 6s					
Michigan 6s					
Minnesota 5s					
Missouri 6s	49½	48½	48½	49½	49½
Mo. Iss. to H. & St. J. R. 64			63		61½
New York 6s, 1874	117				
North Carolina 6s			66		
South Carolina 6s					
Ohio 6s	104				
Tennessee 6s, 1890	52½	52½	51½	52½	52½
Virginia 6s	53½	52	53½	56	56

RAILROAD SHARES:—					
Buffalo & State Line					
Chicago, Burl. and Q.	88½	86	86	87	85½
Chicago and Rock Isl.	68½	67½	67½	69	68
Clev., Col. and Cin.	119	120		120	
Clev. and Pittsburg	23	23	23½	23	23½
Clev. and Toledo	60½	60½	52½	53½	53½
Del., Lack. and West.					
Galena and Chicago	72½	72½	73	74½	74
Hudson River	48½	47½	48	49	47½
Illinois Central (scrip)	61	62	62½	63	62½
Michigan Central	66	66	66	67	67½
M. S. and N. I. guar'd.	60	60	59	60½	62½
M. S. and N. I.	27½	27½	27½	28	29½
Mil. and P. du Chien	33	32½	33½	34½	34½
M. and P. du C. 1st pref.					
M. and P. du C. 2d pref.					
New Jersey				73	74
New Jersey Central					
New York Central	93½	93½	94	94½	93½
Erie	87½	87½	87½	89	88½
Erie pref.	67½	67½	68	69	68½
N. York and Harlem	16	16	16	16½	17
N. Y. and H. "pref."	48	39½	39½	41	41½
Panama	139		140	140½	139
Phila. and Reading	60	59		60	59½
Toledo & Wabash					
" Pref.	45				

RAILROAD BONDS:—					
Buff. N.Y. & E. 1st M. 90				90	90
Ohio and N.W. 1st M.	66			31½	31½
" 2d M. 30½					
" S. F.					
Ch. & Tol. S. F. 7 p.c.	94½		94½		
Chl., Bur. and Q. 8 p.c.	109	110		96½	96
Chl. and R.I. 1st M. 70 103					
D. L. & W. 1st M. 8 p.c. 71-5					
" 2d M. 8 p.c. 81					
Gal. & Ch. 1st M. 7 p.c. 63		104			104½
" 2d M. 7 p.c. 75			93½		
Hann. & St. J. bonds					
Hudson R. 1st M. 7 p.c. 60	107	106½			
" 2d M. 7 p.c. 60					
" 3d M. 7 p.c. 75 93			94		
" sink fund		104½			
Illinois Central bonds	97½	98	98½	99½	
La Crosse & Mil. L. G.					
Mil. and P. du C. 1st M. 96				97	95
Mich. Cen. S. F. 8 p.c. 82 109				108	
" conv. 8 p.c. 69 107					
M. S. & N. I. 1st M. S. F. 101		101		101½	
" 2d M.	86	86½	86½	91	
N. J. Central 1st M.					
" 2d M.					
N.Y. O. 6 p.c. certif. 83				104½	
" 1st M. 7 p.c. 64 103			104	104	
" bonds 1876				110½	
N.Y. & E. 1st M. 7 p.c. 67 109					
" 2d M. 7 p.c. 64			108½		
" 3d M. 7 p.c. 83 101			102	102½	
" 4d M. 7 p.c. 80 93		93	93	94	93½
" 5d M. 7 p.c. 83		86		88	
N.Y. & H. 1st M. 7 p.c. 73				107	
" 2d M. 7 p.c. 67				101	
" 3d M. 7 p.c. 64					
Pitts., Ft. W. & Chl. 1st M.	94	94½	94½	95	94½
" 2d M.	78	79	79½	81	80½
" 3d M.	50	50	50	50	53
St. L., Alt. & Chl. 1st M.					
St. L., A. & T. H. 1st M. 91	92½		92	92½	
" 2d M. 88½	88½		90		90
Toledo & Wab. 1st M.	92½	92	92½	93	
" 2d M.	68½	68½	69	71	70½

MISCELLANEOUS:—					
American Gold	115½	115½	114½	115½	115½
Del. and Hud. Canal	98		98		98
Penn'a Coal Co.	98½		98		98½
Pacific Mail S. S. Co.	112½	107½	110	112	110

The following are the closing prices in the London Market on the 9th August:

United States 5s, 1874	64	to	66
Maryland 5s	63	"	72
Virginia 6s	44	"	46
Atlantic and Great Western, N. Y. sec., 1st mort., 1880, 7 per cent.	x. c.	64	" 68
Erie shares, ex assessment scrip	26	"	28
Erie shares, 7 per cent. preference	49	"	50
Erie shares, assessment scrip	14	"	14
Illinois Central 6s, 1875	70	"	72
Illinois Central 7s, 1875	x. c.	77	" 78
Illinois Central \$100 shares, \$90 paid, dis.	51	"	50
Illinois Central, all paid	48	"	50
Michigan Central 5s, Convertible, 1869	78	"	82
Michigan Central Sinking Fund 5s, 1852	78	"	82
Michigan South. and North. Indiana 7s, 1885		"	
" do. do. \$100 shares		"	
New York Central 6s, 1883	77	"	79
New York Central 7s, 1864	x. c.		
New York Central 7s, 1876	77	"	79
New York Central 7s, 1876		"	
New York Central \$100 shares		"	
New York and Erie 7s, 1837	85	"	90
New York and Erie, 2d mort., 1859	78	"	82
New York and Erie, 3d mort., '83, assessed	75	"	76
New York and Erie, 4th mort.		"	
New York and Erie, 5th mort.		"	
New York and Erie Bonds, 1862, '71, '75		"	
New York and Erie shares, assessed		"	
Panama, 1s. mortgage 7s, 1865	103	"	105
Panama, 2d mortgage 7s, 1872	102	"	104
Pennsylvania Central 6s	x. c.	75	" 78
Pennsylvania Central 2d mortgage	84	"	86
Pennsylvania Central \$50 shares		"	
Philadelphia and Reading \$50 shares	18	"	22

**American Railroad Journal.**

Saturday, August 23, 1862.

**The Earnings of our Railroads.**

In the general disarrangement of business consequent upon the prosecution of the war, the railroad interest in the loyal States, has suffered less, probably, than any other. As the work of restoring order progresses, it not only finds its business for the most part still left, but actually increasing at a rate that is almost unprecedented.

Below we give a comparative statement of the earnings of a number of our leading railroads for July, 1862, with those for July, 1861, as far as they have been received. A large increase is shown in almost every instance—in the aggregate nearly a million of dollars, or 35.69 per cent. The earnings of the New York Central amounted to \$748,000, in round numbers, against \$523,000 for the corresponding month of 1861—a gain of 43.16 per cent. Those of the Erie were \$587,009, against \$372,705—a gain of 57.51 per cent. In both cases, July, 1861, was an ordinarily prosperous month. The Hudson River road has also done remarkably well, showing an increase of \$44,964 for July, and for the first seven months of the year, of \$479,000—equal to 39 per cent. in the former and 42 per cent. in the latter case. The Harlem exhibits an increase for July of nearly 10 per cent.

The Western roads also show a satisfactory increase in earnings. Those of the Illinois Central being \$249,929, against \$189,279 in July, 1861—an increase of \$60,650, or 32 per cent., notwithstanding the lower Mississippi has not yet been opened throughout. The earnings of the Chicago, Burlington and Quincy are 30 per cent. in excess of those of July, 1861. The Michigan Central, 39; the Michigan Southern, 43; the Galena and Chicago, 31; and the Pittsburg, Fort Wayne and Chicago, 36. The gain made in the Chicago and Northwestern, the

Chicago and Rock Island, the Cleveland and Toledo, the Toledo and Wabash, the St. Louis, Alton and Chicago, the Rome and Watertown, and the Norwich and Worcester is also large.

**RAILROAD EARNINGS FOR JULY.**

	1862.	1861.	Increase, +
Buffalo, New York and Erie	\$587,180.55	\$466,413.75	\$120,766.80
Chicago, Burlington & Quincy	220,210.72	169,463.07	50,747.65
Chicago and Northwestern	93,021.72	70,997.10	22,024.62
Chicago and Rock Island	114,057.00	88,992.00	25,065.00
Cleveland and Toledo	69,338.00	56,134.00	13,204.00
Erie	587,009.97	372,705.59	214,304.38
Galena and Chicago	190,973.42	143,389.19	47,584.23
Harlem	101,567.00	92,802.23	8,764.77
Hudson River	159,768.73	114,804.23	44,964.50
Illinois Central	249,929.85	189,279.75	60,650.10
Michigan Central	172,188.80	123,377.30	48,811.50
Michigan Southern	181,000.00	126,000.00	55,000.00
Mil. and Prairie du Chien	108,721.51	107,116.51	1,605.00
New York Central	748,000.00	523,000.00	225,000.00
Norwich and Worcester	32,456.54	26,665.08	5,791.46
Pittsb., Ft. W. and Chicago	246,673.09	180,429.38	66,243.71
Rome and Watertown	36,255.54	30,277.57	5,977.97
St. Louis, Alton and Chicago	89,215.71	73,474.19	15,741.52
Toledo and Wabash	115,234.03	91,464.26	23,769.77
Total	\$3,573,731.52	\$2,633,688.30	\$940,043.22

\* Not official. † Increase 35.69 per cent.

The statement of the New Jersey Central for the first seven months showed an increase of earnings from passengers of \$66,878; but this was in part off-set by a reduction in coal receipts, on account of the late freshet, reducing the aggregate increase to \$22,472, or four per cent. The remainder of the year, however, will do much to restore the ratio between this year and the last as it stood two months ago. For the same period, the Cleveland, Columbus and Cincinnati showed a gain of \$197,071 in the gross, and of \$154,441 in the net earnings. Those (gross) of the Galena and Chicago this year foot up to \$935,473, a gain of \$107,393 over the same period of 1861.

It is not necessary to refer to other examples as indicative of the prosperity enjoyed by the railroads of the North. At the same time, political events and the general movement in favor of retrenchment which has gone into effect, render it certain that this increase in receipts will not be accompanied by a corresponding rise in disbursements, particularly in the items of salaries. All supernumeraries have been pretty thoroughly weeded out of the service of our railroad companies, and economy everywhere is the rule rather than the exception. This year, in fact, promises to take our public works pretty well out of the slough.

**Canadian Agricultural Statistics.**

From the census of 1861 we learn that the total quantity of lands held in Upper Canada is 13,354,907 acres, valued at \$295,162,815, or \$22.10 per acre on an average. In Lower Canada the number of acres held is 10,223,959, valued at \$168,432,546, or \$16.47 per acre. York in the Upper Province containing the capital city (Toronto) of course shows the greatest proportion of lands under cultivation and the highest valuation of real estate. Of its 443,577 acres held, 292,218 are

under cultivation, the average value of the whole being \$52 12. In York township these figures are respectively 54,469, 40,081 and \$79 14.

The value of farming implements, the same year, is put down at \$11,280,347 for the Upper Province, York county, at the head of the list, having implements to the value of \$843,288. The products of gardens and orchards for 1860, in the same Province, are returned at only \$1,304,145—a sum which is doubtless exceeded by the strawberry crop of New Jersey. The value of live stock is estimated as follows. In Upper Canada, \$53,227,486; in Lower Canada, \$24,572,124; but it is alleged that serious errors have been committed in footing up these figures and that the value of live stock in Upper Canada is here represented as being from ten to twelve millions too high. With all this drawback, however, the difference between the two sections is vast, while it is increasing year by year.

#### The Eighth Census.

The following is a continuation of the preliminary chapters of the Census Report of 1860, now in course of preparation at Washington, under the direction of Jos. C. G. KENNEDY, Esq.:

#### VALUE OF REAL AND PERSONAL ESTATE.

The marshals of the United States were directed to obtain from the records of the States and Territories respectively, an account of the value of real and personal estate as assessed for taxation. Instructions were given these officers to add the proper amount to the assessment, so that the return should represent as well the true or intrinsic value as the inadequate sum generally attached to property for taxable purposes. The result of this return by all the census takers will be found in table No. 84, whereby it will appear that the value of individual property in the States and Territories exceeds the sum of sixteen thousand millions of dollars; representing an increase of one hundred twenty-six and a half per centum in ten years in value in the aggregate, and an increase of sixty-eight per cent per capita of the free population. The rate of increase has been immense in the Western States, while the absolute gain in the older States has been no less remarkable. For example, the rate of increase in Iowa has been more than nine hundred per cent., while the absolute increase of wealth has been two hundred and forty-seven millions of dollars; while Pennsylvania has increased at the rate of ninety-six per cent., with an absolute gain in wealth of near seven thousand millions of dollars. The wealth per capita for Iowa in 1850 was \$123, while in 1860 it amounted to \$366, a rate of increase of one hundred and ninety-seven and a half per cent. The wealth of Pennsylvania in 1850 per capita was \$312; in 1860 per capita was \$487; the rate of increase fifty-six per cent.

It must be borne in mind that the value of all taxable property was returned, including that of foreigners as well as natives, while all was omitted belonging to the States or United States. In considering the relation of population to wealth the fact must be borne in mind that a much larger proportion of the property of the Western than Eastern States is held by non-residents, and that this circumstance is not without its influence in exaggerating the wealth of individuals in States where large investments have been made by persons resident elsewhere.

The effect of internal improvements upon the prosperity and wealth of the country cannot be better illustrated than by the rapid enhancement in value of all property brought within their influence.

#### PRODUCTS OF INDUSTRY.

The returns of manufactures exhibit a most gratifying increase, and present at the same time an imposing view of the magnitude to which this

branch of the national industry has attained within the last decennium.

The total value of domestic manufactures (including fisheries and the products of the mines), according to the census of 1850, was \$1,019,106,616. The product of the same branches for the year ending June 1, 1860, as already ascertained in part and carefully estimated for the remainder, will reach an aggregate value of nineteen hundred millions of dollars. This result exhibits an increase of more than eighty-six per centum in ten years. The growth of this branch of American labor appears, therefore, to have been in much greater ratio than that of the population. Its increase has been one hundred and twenty-three per cent. greater than that even of the white population by which it was principally produced. Assuming the total value of manufactures in 1860 to have been as already stated, the product *per capita* was in the proportion of sixty dollars and sixty-one cents for every man, woman and child in the Union. If to this amount were added the very large aggregate of mechanical productions below the annual value of five hundred dollars—of which no official cognizance is taken—the result would be one of startling magnitude.

The production of the immense aggregate above stated gave employment to about 1,100,000 and 285,000 women, or one million and three hundred and eighty-five thousand persons. Each of these, on an average, maintained two and a half other individuals, making the whole number of persons supported by manufactures four millions eight hundred and forty-seven thousand and five hundred, or nearly one-sixth of the whole population. This was exclusive of the number engaged in the production of many of the raw materials, and of food for the manufacturers; in the distribution of their products, such as merchants, clerks, draymen, mariners, the employees of railroads, expresses and steamboats; of capitalists, various artistic and professional classes, as well as carpenters, bricklayers, painters and the members of other mechanical trades not classed as manufacturers. It is safe to assume, then, that one-third of the whole population is supported, directly or indirectly, by manufacturing industry.

These general facts, therefore, plainly indicate that, in point of productive value, and far reaching industrial influences alone, our manufactures are entitled to a front rank among the great interests of the country. Indeed, the collection and classification of facts relating to the material progress of the people periodically intrusted to the Census office, furnish in general, valuable milestones in the pathway of the nation's greatness. But among the facts so collected, none are more instructive—none have more numerous or intimate relations to every department of the public economy; to the general welfare of the people, domestic, social, industrial, or moral—than these records of their productive capacities in the automatic and handicraft arts. However uninteresting to many, the details are full of instruction to the statistician. The subject is grand in its outlines; but, contemplated in its persuasive influence upon the welfare of the whole people, the dry and repulsive skeleton of mere facts and figures presented in the official tables gradually takes on the form, substance and habiliments, and becomes animated with something of the life, activity and beauty, of a living economy. The statistics of looms, spindles and factories; of furnaces and forges; of steam engines and sewing machines, and of a thousand other instruments of creative industry, become the representatives of almost every form of national and individual happiness, exertion, aspiration and power.

#### THE MECHANIC ARTS,

particularly in our country, where they are most diffused, and almost universal, appear to contribute more directly than any other to the general comfort and improvement of the people. All others are dependent upon them for the general agents and instruments of their success. They are scarcely more subservient to the primary wants of mankind than to the higher ministrations of

taste and refinement. The acquisition and diffusion of knowledge, the means of intercommunication and transportation, the comforts, enjoyments, and security of the fireside, and even to the honor and integrity of the nation itself, are dependent upon the skill and enterprise of the manufacturer and the mechanic; but the results of their labors are, from their nature, less obtrusive or obvious to the general apprehension than some others. The annual movements of our immense crops of grain, cotton, and other bulky staples, are easily appreciated. The pulsations of commerce may be counted by a superficial observer, in the arrival and departure of ships, and upon the records of the Custom House and the Exchange; but in the hands of the manufacturer a modicum of crude material undergoes a process of a division, transformation and elaboration, and then silently and unobtrusively disappears—diminished in bulk, but augmented, it may be, many hundred fold in value—in the ordinary channels of distribution, where it is often undistinguished from its foreign rival. It is only when the nation decennially takes its account of stock that any approximate idea is obtained of the value of this item in the general account.

And who can justly estimate the influence upon the general happiness and prosperity—upon the progress in civilization of the sum total of effective labor, capital and skill represented by such an aggregate as we have stated? What an amount of fixed capital—of labor, enterprise, ingenuity—of resources, material and immaterial—involved in the creation of nearly two thousand millions worth of manufactures in a single year. The addition of nearly one thousand millions to the annual product of domestic manufactures—an amount almost equal to the total home consumption thereof in 1850—implies also vast additions to the permanent wealth of the Union and to the elements of a progressive civilization. The increased support given to agriculture, commerce and the mining interests by the consumption of hundreds of millions of dollars worth of raw material, and to hundreds of thousands of men, women and children, who would have been otherwise unemployed, or forced into competition with the farmer or planter, instead of being consumers of their produce, forms but a part of the benefits conferred upon the community at large. The independence and security contributed by the large body of intelligent manufacturers and mechanics capable of ministering to every want, whether of supply or defence, cannot be overestimated. As might have been expected from the revelations of the census, the country has been able to lean with confidence upon this arm of its strength in the trying emergency which has put the nation in armor for the defence of its dearest interests.

#### PROGRESS OF THE NEW STATES AND TERRITORIES.

It is a gratifying fact, shown by the official statistics, that while our older communities have greatly extended their manufactures, the younger and more purely agricultural States, and even the newest Territories, have also made rapid progress. Nor has this department of American industry been cultivated at the expense of any other. There is much reason to believe that it affords the safest guarantee of the permanency and success of every other branch. Evidence bearing upon this point is found in the manufacture of agricultural machines and implements, which is one of the branches that shows the largest in the period under review. There is little doubt that the province of manufactures and invention in this case has been rather to create than to follow the demand. The promptness of Americans to adopt labor saving appliances, and the vast areas devoted to grain and other staples in the United States, have developed the mechanics of agriculture to an extent and perfection elsewhere unequalled. The adoption of machinery to the extent now common in farm and plantation labor furnishes the best assurance that the development of agriculture or manufactures to their utmost, can never again justify the old charge of antagonism between them in regard to labor, or injuriously affect either by materially modifying its cost or supply.



## AGRICULTURAL IMPLEMENTS.

The total value of agricultural implements made in 1860 was \$17,802,514, being an increase of 160.1 per cent. upon the total value of the same branch in 1850, when it amounted to the sum of \$6,842,611. This manufacture amounted in New England to over two and three-quarter millions of dollars—an increase of 65.8 per cent. In the Middle States the value was nearly five and a half millions, having increased at the rate of 122.2 per centum. In the Western States, where the increase was most extraordinary, the value of implements produced was augmented from \$1,923,927 to \$7,955,545. The increment alone in those States was, therefore, only a fraction less than the product of the whole Northern section of the Union in 1850, and was greater by 313 per cent. than their own manufacture in that year. In each of the States of Ohio and Illinois, which are the largest manufacturers in the West, the value of the product exceeded two and a half million dollars, being an increase in the former of 382, and in the latter of 235 per cent. in ten years. Michigan, Indiana and Wisconsin increased their production of agricultural implements 1,250,386 and 201 per cent. respectively. While in some of the Southern States there has been a decrease. In Virginia, Alabama and Louisiana the increase in this branch has been large, and in Texas, which reported none in 1850, agricultural implements of the value of \$140,000 were manufactured in 1860. The whole value produced in the Southern States in the latter year (including cotton gins) was \$1,582,488, exhibiting an increase of over 101 per cent. in the last decade.

## IRON.

The quantity of pig iron returned by the census of 1860 was 884,474 tons, valued at \$19,487,790, an increase of 44.4 per cent. upon the value returned in 1850. Bar and other rolled iron amounted to 406,298 tons, of the value of \$22,248,796, an increase of 39.5 per cent. over the united products of the rolling mills and forges, which in 1850 were of the value of \$15,938,786. This large production of over one and a quarter millions of tons of iron, equivalent to 92 pounds for each inhabitant, speaks volumes for the progress of the nation in all its industrial and material interests. The manufacture holds relations of the most beneficial character to a wide circle of important interests intimately affecting the entire population; the proprietors and miners of ore, coal and limestone lands; the owners and improvers of woodlands, of railroads, canals, steamboats, ships, and every other form of transportation; the producers of food, clothing and other supplies, in addition to thousands of workmen, merchants and capitalists and their families, who have directly participated in the benefits resulting from this great industry. It has supplied the material for an immense number of foundries, and for thousands of blacksmiths, machinists, millwrights and manufacturers of nails, hardware, cutlery, edged tools, and other workers in metals, whose products are of immense aggregate value and of the first necessity. The production of so large a quantity of iron, and particularly of bar iron, and the demand for additional quantities from abroad, tell of the progress of the country in civil and naval architecture and all the engineering arts; of the construction of railroads and telegraphs, which have spread like a net over the whole country; of steam engines and locomotives, of spinning, weaving, wood and metal working; milling mining and other machinery, and of all the multifarious instruments of science, agriculture and the arts, both of peace and of war; of the manufacture of every conceivable article of convenience or luxury of the household, the field or the factory. The aggregate statistics of iron exhibit the extent to which the general condition of the people has been improved by this great agent of civilization during the ten years embraced in this retrospect.

The materials for the manufacture of iron—ore, coal and other fuel, water power, etc.—are so diffused, abundant and cheap that the entire independence of foreign supplies appears to be alike desirable and attainable at no distant period.

## MACHINERY.

Probably no class of statistics possesses more general interest, as illustrating the recent progress of the country in all the operative branches, and in mechanical engineering, than those relating to machinery. Nearly every section of the country, particularly the Atlantic slope, possesses a great affluence of water power, which has been extensively appropriated for various manufacturing purposes. The construction of hydraulic machinery, of stationary and locomotive steam engines, and all the machinery used in mines, mills, furnaces, forges and factories; in the building of roads, bridges, canals, railways, etc.; and for all other purposes of the engineer and manufacturer, has become a pursuit of great magnitude. The annual product of the general machinists' and millwrights' establishments, as returned in the census of 1860, was valued at \$27,998,344. The value of the same branch, exclusive of sewing machines, amounted in 1860 to \$47,118,550, an increase of over eighteen millions in ten years. The Middle States were the largest producers, having made over forty-eight per cent. of the whole, but the Southern and Western States exhibit the largest relative increase. The ratio of increase in the several sections was as follows:—New England, 16.4 per cent.; Middle States, 55.2; Southern, 387; and Western, 127 per cent. The Pacific States produced machinery of the value of \$1,686,510, of which California made \$1,600,510. In Rhode Island the business was slightly diminished; but in Connecticut it had increased 165 per centum. The great facilities possessed by New York and Pennsylvania in iron, coal and transportation made them the largest manufacturers of machinery, which in the former was made to the value of \$10,484,863, and in the latter, \$7,243,453—an increase of 24.4 and 75 per cent. respectively. New Jersey raised her product to \$3,215,673, an increase of 261 per cent., while Delaware and Maryland and the District of Columbia exhibited an increase of 82, 41 and 667 per cent. respectively. In all the Southern States the value of the manufacture, though small, was largely increased; the ratio in Virginia, the largest producer, being 236 per cent., while in Mississippi, Alabama and South Carolina, the next in amount of production, it was 1,626, 270 and 525 per cent. respectively. This was exclusive of cotton gins, which were included with agricultural machinery. Ohio was the largest producer in the West, and the fourth in the Union, having made to the value of \$4,855,005, an increase of 125 per cent. on the product of 1850. Kentucky ranked next among the Western States, having produced over one million dollars worth, and increased her product 213 per cent. The ratio of increase in the other Western States was:—In Indiana, 98; in Illinois, 24; Wisconsin, 208; Missouri, 214, and Iowa, 2,910 per cent. respectively; but in Michigan there was a small decrease in the amount manufactured.

## IRON FOUNDRIES.

Besides a large amount of machinery and other castings included in the returns of machine shops, the value of the production of iron foundries, returned by the census of 1860, reached the sum of \$27,970,193; an increase of 42 per cent. on the value of that branch in 1850, which was \$20,111,517. New York, whose extensive stove foundries swell the amount of production in that State, made to the value of \$8,216,124, and Pennsylvania, \$4,977,793, an increase of 39 and 60.9 per cent. respectively.

## COAL MINES.

With the subject of iron and its various manufactures that of fossil fuel naturally associates itself. The unequalled wealth and rapid development of the coal fields of the United States as a dynamic element in our industrial progress affords one of the most striking evidences of our recent advance. The product of all the coal mines of the United States, in 1860, was valued at \$7,173,750. The annual value of the anthracite and bituminous coal, according to the eighth census, was over \$19,000,000. The increase was over \$12,000,000, and was at the rate of 169.9 per cent on the product

of 1850. It was chiefly produced in Pennsylvania, Ohio and Virginia. The coal mines in Pennsylvania, in 1850, was valued at \$5,268,851. In the year ending, June 1, 1860, the State produced 9,397,332 tons of anthracite, worth \$11,869,574, and of bituminous coal, 66,994,295 bushels, valued at \$2,833,859, making a total value of \$14,703,433, or an excess of \$7,529,683 over the total product of the Union in 1850. Of bituminous coal, Ohio raised 23,339,900 bushels, the value of which was \$1,539,713; and Virginia, 9,542,627 bushels, worth \$690,188. The increase in Ohio was \$819,587, and in Virginia, \$222,780, in the value of mineral fuel, being at the rate of 113 per cent in the former, and 47.6 per cent in the latter. The increase in Pennsylvania was 179 per centum on the yield of 1850.

## MINING.

The development of our several valuable mines of coal, iron, lead, copper, zinc, gold, silver, quicksilver, chrome, &c., is a subject of the highest satisfaction, constituting, as they do, the repository and fountainhead of crude materials for an immense and varied industry in the metallurgical and chemical arts. Mining in its several branches employs a very large amount of capital and great numbers of our laborious population, and shows a steady increase in the last ten years. The product of the gold mines in the Atlantic States has, however, fallen off since the discoveries of gold in California.

## LUMBER.

The influence of improved machinery is also conspicuously exhibited in the manufacture of sawed and planed lumber, in which the United States stands altogether unrivalled, as well for the extent and perfection of the mechanism employed as the amount of the product. This reached, in 1850, the value of \$58,521,976, and, in 1860, \$95,912,286, an increase of 64 per cent. in the last decade. The Western States alone, in the latter year, produced lumber to the value of \$33,274,793, an increase of \$18,697,543, or 128 per cent over their manufacture in 1850. The Pacific States and Territories produced to the value of \$6,171,431, and the Southern \$17,941,162, a respective increase of \$3,841,826 and \$9,094,686 in those sections, being a ratio of 162.7 and 102.3 per centum.

## FLOUR AND GRIST MILLS.

Several branches of manufacture have an intimate relation to agriculture and the landed interests, and by their extension powerfully promote those interests as well as that of commerce. Surpassing all others of this or any other class in the value of products and of the raw material consumed, is the manufacture of flour and meal. The product of flour and grist mills in 1860 reached a value of nearly one hundred and thirty-six millions of dollars, while in 1850 the returns exhibit a value of \$223,144,369—an increase of \$87,246,563, or 64.2 per cent in the last ten years. The production and increase of the several sections were as follows:—

	Value of flour and meal.	Per cent increase.
New England States.	\$11,155,445	\$4,834,959 76.5
Middle States.....	79,086,411	10,653,232 15.5
Western States.....	96,038,794	53,364,802 125.0
Southern States....	30,767,457	14,185,640 85.5
Pacific States.....	6,096,262	4,207,930 222.8

The largest mill is in Oswego, New York, which in 1860 produced 300,000 barrels of flour; the next two, in Richmond, Virginia, made 190,000 and 160,000, respectively; and the fourth, in New York city, returned 146,000 barrels. The value of annual production of each ranged from one million and a half to two million dollars.

## SPIRITUOUS LIQUORS.

The manufacture of spirituous liquors in the United States employed 1,138 distilleries, independent of a large number of rectifying establishments, the product of the former being over eighty-eight millions of gallons, of the value of \$24,253,176. The middle and Western States were the largest producers, the latter yielding nearly forty-five and the former thirty-seven millions of gallons of whiskey; high wines and alcohol, the aggregate



value in each section being almost eleven millions of dollars. It is satisfactory to observe that more than ninety-five per cent of all the spirits made was from materials of domestic production, a little over four million gallons of New England rum having been the product of imported molasses.

#### MALT LIQUORS.

The manufacture of malt liquors, though of less magnitude, and far less pernicious in its effects, shows a still larger increase. It derives its material wholly from agriculture, and its extension promises more substantial benefits to the country than the last.

The Northern States returned 969 breweries, or more than double the number in the Union in 1850. The quantity of all kinds of malt liquors made, including 855,803 barrels of lager beer, was 3,235,545 barrels—an increase of 175 per cent upon the total product of 1850, while its value was returned at \$17,977,135, being more than three times the amount produced by breweries in that year. Nearly one half of the whole quantity was made in New York and Pennsylvania. The former had 175 establishments—45 of them in the city of New York—and the latter State 172, of which Philadelphia contained 68. The manufacture of lager beer was much increased in all the Middle and Western States, about 41 per cent of the whole being the product of the two States last named. Among the Eastern States, Massachusetts, and among the Western States, Ohio, Illinois and Missouri were the largest producers of malt liquors. There were 71 breweries in California and 8 in Oregon, producing together about 7 per cent of the total value of the manufacture.

From the Lond. Civ. Eng. and Arch. Jour., Apr., 1862.

#### Description of the Centre Pier of the Bridge across the River Tamar at Saltash, on the Cornwall Railway, and of the means employed for its construction.

By R. P. RREBETON, M. Inst. C. E.

This communication embraced, in a narrative form, a detailed account of the preliminaries connected with the Albert Bridge, which crossed the river Tamar where it was only 1100 feet wide, with precipitous banks and a depth of water to the surface of the mud of 70 feet. A dyke of greenstone trap intersected the clay slate formation at this point, and cropped out to the surface above the water on the western bank of the river. It was ascertained by borings made in the bed of the river that rock extended from the eastern side to beyond the middle of the stream, covered with mud or silt to a depth of from 3 feet to 16 feet. Subsequently, a thorough examination of the bed of the river where a centre pier would probably be built, by means of 175 borings made within a cylinder at thirty-five different places, over an area of 50 feet square, enabled an exact model of the surface of the rock to be prepared, showing the irregularities and fissures that might be expected. Eventually it was decided, from the information thus obtained, to erect one pier only in the deep water, instead of three, as would have been necessary for the spans required by the Admiralty; and when it was determined to proceed with the construction of the bridge, in 1852, it was decided that there should be two spans of 455 feet, two of 93 feet, two of 83 feet 6 inches, two of 78 feet, two of 72 feet 6 inches, and nine of 69 feet 6 inches; the total length, including the adjoining land openings, being 2200 feet.

The centre, or deep water pier, intended to carry the weight of one half of each of the two main spans, consisted of a column, or circular pillar, of solid masonry, 35 feet diameter and 96 feet high, carried up from the rock foundation to above high-water mark. Upon this were placed four octagonal columns of cast iron, 10 feet diameter, carried up to the level of the roadway, which was 100 feet above high-water mark. Upon the tops of the columns, cast iron standards were fixed to receive the ends of the tubes and chains which constituted the trusses of the bridge. The weight at the bottom of the masonry foundations was about  $9\frac{1}{4}$  tons per square foot, increased,

when the bridge was loaded by passing trains, to about 10 tons per square foot.

In the construction of the masonry pier, a wrought iron cylinder, of boiler plates, 37 feet in diameter and 90 feet in length, and open at the top and bottom, was sunk through the mud of the bed of the river to the rock. The water was then pumped out, and the mud excavated, the masonry being built up inside, and the cylinder above the ground afterwards removed. It was expected that, by forming a bank round the cylinder after being sunk to the rock, sufficient water-tightness would be ensured for getting in the masonry. To provide, however, for the contingency of excessive leakage, the cylinder was so constructed as to admit of the application of air pressure. As the surface of the rock, although very irregular and ragged, had a general dip to the south-west, the bottom of the cylinder was formed with a corresponding bevel, one side being 6 feet longer than the other. A dome, or lower deck, was constructed inside, at the level of the mud, and an internal cylinder, 10 feet in diameter, open at the top and bottom, connected the lower with the upper deck of the cylinder. The 6 feet cylinder, previously used for the borings, was fixed eccentrically by inside the other, and an air-jacket or gallery, making an inner skin round the bottom edge below the dome, was formed, about 4 feet in width, divided into eleven compartments, and connected with the bottom of the 6 feet cylinder by an air passage below the dome.

Details were then given of the construction of the larger cylinder, and of the mode of launching and floating it to its position. When accurately adjusted over the intended site, water was gradually let in until the cylinder penetrated through the mud about 13 feet and rested on some irregularities upon the rock, which caused it to heel over towards the east about 7 feet 6 inches. By letting water in upon the dome or lower deck, and loading the higher side with iron ballast, the cylinder forced its way through the obstructions at the bottom edge, and took a nearly vertical position. The air and water pumps were then set to work, and the greater part of the mud and oyster shells, which filled the compartments of the air-jacket at the bottom, was cleared out, and the irregular surface of the rock excavated: the bottom of the cylinder being now 82 feet below high-water. Subsequently, a leak having broken out through a fissure in the rock on the north-east, or higher edge, considerable difficulty was experienced in maintaining sufficient pressure with the air-pumps to keep the water down and the bottom dry. The leak was at length reduced, by driving close sheet piling into the fissure. When at its full depth, the cylinder was 87 feet 6 inches below high-water at the lowest place, and then a hemp gasket was worked under the edge of the cylinder, all round the outside, to assist its water-tightness. A ring of granite ashlar, 4 feet in width and about 7 feet in height, was then built in the air-jacket; and a bank of clay and sand was deposited round the outside of the cylinder to compress the mud. When the water was pumped out of the cylinder below the dome, and the excavation of the mud was being proceeded with, a leak broke out, and the water overpowered the pumps. Additional engines and pumps were provided, and efforts were made to diminish the leakage, with varying success; but as it required four pumps to keep the water down to 54 feet, recourse to air pressure in the body of the cylinder below the dome became imminent, and preparations for its application were made. To provide against the buoyancy, or upward pressure against dome and cover, the 37 feet cylinder was loaded with 750 tons of ballast, in addition to its own weight of 290 tons. The pumps were then got in good order, and by continued pumping, succeeded in keeping the water down. The mud was excavated, the cylinder below the dome securely shored across, and the rock levelled, when the masonry in thin courses of granite ashlar in cement, in the body of the cylinder was commenced. As soon as the masonry reached the level of the air-jacket ring, it was thoroughly bonded, the plates of the

air-jacket being cut out as it proceeded. Upon the top of the bonding course, two courses of hard brick work in cement were laid, making a perfectly water-tight floor over the whole diameter of the column. Meanwhile, the masonry of the air-jacket, where the leak occurred, was taken down, and the leak was diminished by additional sheet-piling. The leak was discovered to have broken out at the same fissure as before, and had torn away the rock underneath the masonry of the air jacket and bottom edge of the cylinder, but the masonry itself was undisturbed.

The next operation was to draw off the water above the dome and remove the ballast, to allow the masonry to be proceeded with, which it eventually did at the rate of from 5 to 7 feet in height per week. When it was 46 feet in height the influx of water was entirely stopped. After the masonry had been completed to the level of the plinth, the upper part of the cylinder was unbolted at the separate joints, and floated to the shore.—*Proceedings Inst. Civil Engineers.*

#### Chicago and Lake Superior Trade.—The Upper Mississippi Valley.

We know of but few cities in these times of war and bloodshed whose commercial prosperity, is equal or will even compare with that of Chicago. The building of residences throughout our city has been quite extensive the present season, and a great difficulty is still experienced in finding desirable tenements, and while we are prospering and our growth is becoming more and more substantial from year to year, it is our duty to extend our business relations, and give the country which is making us the empire city, the encouragement necessary.

The Lake Superior region and the Upper Mississippi is deserving of more than a passing notice. We have of course business relations with La Crosse, St. Paul, and the Lake region, but not until we fully compete with our rivals, can we do justice to ourselves or to the trade justly tributary to us. Chicago is not behind any city in enterprise or liberality, but it is a fact that we have not done all we should do to have the Iron and Copper trade centre at Chicago.

Our merchants are not alive to the importance of the trade of Marquette, Ontonagon, Eagle River, Houghton, Bayfield, and Superior City. The trade is quite large and is centered at Detroit and Cleveland, and until our merchants do something in the matter, the trade will be lost to our city.

The Mercantile Association should cultivate an intimate acquaintance, and it would not be unbusiness like to make the Lake Superior country a visit the present season.

The Northwestern Railway Company long since saw the advantages of communication with the Copper and Iron districts of the upper Peninsula, and as soon as their railway is completed through to the Lake, Chicago can control the entire trade of this most valuable region of country, thus ensuring a trade that has built up and sustains two cities of the lower lakes whose population is at least three times as large as Chicago.

The trade of Lake Superior is necessary to the successful growth and prosperity of a city such as Chicago. Our own people do not all wish to be on the Corn Exchange. The manufacturing interest here is on the increase, and it is only the want of the raw material to give us the advantage we now need in making us not only the commercial but also the manufacturing emporium of the great Northwest.

We need the railway direct to the Copper and Iron regions, but more frequent water communication and liberal inducements should at once be extended to the towns and dealers of Lake Superior.

La Crosse, St. Paul and the Upper Mississippi are seeking the trade of Lake Superior and the harbors of Superior City and Bayfield, and unless we are more energetic, these points may divert the trade of the Upper Mississippi Valley. Milwaukee now enjoys almost a monopoly of the trade centering at the depot of the La Crosse road on the Mississippi river, and the sooner La Crosse



can have a competing line of railway to the east, the better for her as well as this city. The trade of Minnesota is growing rapidly and La Crosse should be its near market and reshipping point, but it never can be while its dependencies are upon a single line of railway. The Upper Mississippi as well as the upper lake region, naturally seek this point as a commercial and a manufacturing centre, and it remains for our business men to facilitate direct and cheap, and frequent water communication to the upper lake region, as well as a short, competing line of railway to the Upper Mississippi.

Let us have these facilities. Let us enjoy the trade and commerce of the Northwest by way of the Mississippi on our side, and the great lakes on the other; then we may justly claim the title of the Empire City of the Northwest.—*Western Railroad Gazette, August 9.*

#### The Pacific Railroad.

So far as legislation can have any effect, the success of this stupendous project was insured at the last session of Congress. The Pacific Railroad bill was unquestionably the most important act relating to works of internal improvement ever passed by the National Legislature; yet in the political excitement attending the last days of the session, at which time it became a law, the subject received little more than passing notice. As a link intimately connecting the Atlantic States with those on the Pacific coast, this projected work possesses great political importance, and as affecting the interests of commerce—developing the vast agricultural and mineral resources of California and the newly organized territories—its future influence cannot be calculated. Furthermore, it is not unreasonable to anticipate that the completion of the Pacific Railroad will essentially change if not revolutionize our carrying trade with the markets of the Old World. It is almost inevitable that a large proportion of the East Indian trade, such as silk and tea, will be diverted from its accustomed channels to the most expeditious route, overland; and the same influences will tend to foster enterprises for the establishment of steam lines on the Pacific, bringing the West coast into close connection with the Orient, and speedily giving importance to the long coveted trade of Japan and the Amoor.

California papers, as might be expected, are exultant with the prospect which they conceive to be dawning on their land of gold and vegetable prodigies. The route, generally stated, is from the Missouri to Sacramento rivers—its entire length about 1,600 miles—and is divided into three sections, each to be controlled by a separate company. The main or central division of the road is to be built by a company incorporated by the bill; the Western division, from the Sacramento river to the eastern boundary of California, a distance of 112 miles, is entrusted to a company previously organized in the latter State, and the Eastern division is to be built by a company organized in Kansas. The route intersects what is no doubt the richest mineral region in the known world, at once making accessible the silver deposits of Arizona and Washoe, the salt and iron of Utah and Missouri, and opening up the whole auriferous belt of country extending from California eastward to Pike's Peak in Colorado. California editors regard the recent action of the General Government as ensuring the completion of the work. The *Atla Californian* says:

"The whole value of the bill depends upon the sufficiency of the bonus. The most important part of the bonus is the loan for thirty years of a large sum of money for every mile of road built. The road will be about 1,600 miles long. For 150 miles at the Sierra Nevada, and 150 miles at the Rocky Mountains, the loan will be \$48,000 per mile. For 600 miles between those two ranges of mountains, the loan will be \$32,000 per mile. For 600 miles east of the Rocky Mountains, and all that may be made west of Sierra Nevada, the loan is to be \$16,000 per mile. The loans are to be repaid at the end of thirty years, with 6 per cent. annual interest, provided that they are not previously paid

by the transportation of mails, troops and stores. The Government would have so much use for the road, that probably the full amount of the loan would be due for freight before the end of the thirty years. The loan, therefore, may be considered as a payment of thirty years' freight money in advance."

In addition to the loan is a grant of land for five alternate sections on each side of the road, where the land is public and not mineral. Though much of this land is worthless, the grant is an important consideration. To show what reliance is placed upon the resources of the country for the maintenance of the enterprise in its early stages, the editor above quoted says:

"The land grant and the loan together appear to us a sufficient bonus to lead to the construction of the road. When the public mind is once made up that it will be built, there will be such a rush for settlement, and such a demand for travel and freight along the line, that the road would almost pay without a bonus. The laborers required in constructing the road will themselves form no small population. When 500 or 600 miles are built, people will already begin to prefer it as a mode of travel between New York and San Francisco. The time by stage is now about the same as by steamer; but when 600 miles of railroad have been substituted for the same number by stage, the time overland will be reduced to about ten or twelve days. As the overland route is made more attractive, more travelers will resort to it, and better accommodation will be demanded. Large towns will be required to supply the wants of the multitude of passengers. The freight for the central portion of the railroad will make work for those portions at the ends. So vast will be the quantities of lumber, iron, provisions, tools, and supplies of a thousand kinds, needed for the road in Utah, Colorado and Nevada, that the Kansas and Californian roads might make a fine profit over all expenses in that trade alone, if they are permitted to charge more than cost, but they are not."

Notwithstanding the California Company will derive no benefit from the grant of land, because nearly all the land West of the Sierra Nevada is private property, confidence is felt that the Western end of the road will be built without difficulty. As evidence of this, it is stated that the Folsom and the Lincoln roads in California have been built as good investments, and the San Jose, Marysville and Oroville roads are progressing on the same principle. The \$48,000 per mile over the Sierra Nevada, is considered sufficient to make the road to Washoe a certainty, as the trade already on the route would yield a handsome revenue.

The events of the last few years, since Mr. Whitney first broached the project of a railroad to the Pacific, have exerted a prodigious influence for the removal of obstacles which once seemed insuperable. With a more thorough knowledge of the country obtained by elaborate surveys, and with more reason for confidence in human ability as demonstrated by past achievement, the old arguments concerning physical impracticability seem to have lost their force; and the wonderful spread of population over the Western plains, under the stimulus of the gold discoveries, presents a condition of things which none could have anticipated. The electric flash is already guided on a tiny wire through the whole distance safe from the depredations of savages or the warring elements; and postal communication is uninterrupted except by Mormon miscreants. With such progress and such achievements, the past affords encouragement for more lofty endeavors. This coming autumn we may expect the various companies will have completed their organization, and be in readiness to proceed.—*New York Journal of Commerce.*

#### Exhibition the Maryland Institute.

The fifteenth annual exhibition of American Manufactures and Mechanic Arts, under the direction and superintendence of the Maryland Institute, will be opened in the Institute Building in Baltimore, on the 6th of October. The hall will

be opened for the reception of machinery on the 25th of September, and on the 29th for the reception of all other goods.

#### Valuation of the City of New York.

The following table shows the valuation as returned by the Commissioners of Taxes and Assessments, and as corrected by the Committee on Annual Taxes:

Wards.	REAL ESTATE.	
	As returned by Commissioners of Taxes and Assessments.	As corrected by Committee on Annual Taxes.
I. ....	\$32,585,400	\$32,587,400
II. ....	19,727,000	19,727,000
III. ....	25,766,456	25,766,456
IV. ....	9,191,350	9,191,350
V. ....	18,767,200	18,767,200
VI. ....	12,966,050	12,966,050
VII. ....	12,455,399	12,455,399
VIII. ....	18,146,200	18,146,200
IX. ....	15,728,900	15,728,900
X. ....	8,684,500	8,684,500
XI. ....	8,955,920	8,955,920
XII. ....	13,100,385	13,099,485
XIII. ....	5,449,600	5,449,600
XIV. ....	12,867,300	12,867,300
XV. ....	26,934,300	26,934,300
XVI. ....	18,486,300	18,486,300
XVII. ....	17,774,800	17,774,800
XVIII. ....	37,016,600	37,016,600
XIX. ....	17,903,137	17,915,347
XX. ....	17,569,050	17,569,050
XXI. ....	31,948,700	31,948,700
XXII. ....	18,041,857	18,041,857
Total ....	\$399,556,404	\$399,576,714

PERSONAL ESTATE.		
Resident .....	\$161,635,344	\$161,635,344
Non-resident ....	10,780,687	10,780,687
Total ....	\$172,416,031	\$172,416,031

RECAPITULATION.		
Real estate ....	\$399,556,404	\$399,576,714
Personal .....	172,416,031	172,416,031
Total ....	\$571,972,435	\$571,992,745

#### Railroad Earnings--Weekly.

The earnings of the Milwaukee and Prairie du Chien Railroad, for the 1st week of August, 1862, were .....\$14,577 14  
Do., 1861 ..... 18,033 05

Decrease .....\$3,595 92

The earnings of the Toledo and Wabash railroad in the 1st week of August, 1862, were \$36,055 46  
Do., 1861 ..... 21,791 83

Increase .....\$14,263 63

The Galena and Chicago Railroad earned the 2d week in August, 1862 .....\$25,230 00  
Do., 1861 ..... 26,851 00

Decrease .....\$1,621 00

The Michigan Central Railroad earned in the 2d week of August, 1862 .....\$44,878 00  
Do., 1861 ..... 24,120 00

Increase .....\$20,758 00

The Cleveland and Toledo Railroad earned the 2d week of August, 1862 .....\$17,759 00  
Do., 1861 ..... 11,435 00

Increase .....\$6,324 00

The Michigan Southern Railroad shows an increase of about \$19,000 on the second week of August, and for the first half of August as follows:

1861 .....\$53,627  
1862 ..... 89,954

Increase .....\$36,327

The traffic of the Great Western Railway of Canada for the week ending August 8, 1862, was as follows:

Passengers .....	\$22,559 69
Freight and live stock .....	21,242 87
Mails and sundries .....	1,297 17

Corresponding week of last year..... \$45,099 74  
34,330 91

Increase.....\$10,768 82

The receipts of the Grand Trunk Railway of Canada for the week ending August 9, 1862, were:

18,240 passengers .....	\$25,623 01
Mails and sundries .....	2,984 08
Freight and live stock, 9,024 tons....	31,423 08

Total.....\$60,030 17  
Corresponding week of last year..... 58,699 45

Increase.....\$1,330 72

The earnings of the Chicago, Burlington and Quincy Railroad Line for 1st week in August, 1862, were.....\$55,436 18  
Do., 1861..... 31,464 54

Increase.....\$23,971 64

The Toledo and Wabash Railroad earned the 2d week of August, 1862.....\$37,359 89  
Do., 1861..... 27,725 67

Increase.....\$9,634 22

#### Discovery of a New Principle in Natural Law.—Steam-Power Superseded in Mining Operations.

Mr. George Rydell, of Castle street, Holborn, has invented and patented an apparatus which if successfully developed will, at least for mining purposes, entirely supersede steam engines, and all other machines hitherto used for the production of motive-power. The inventor very justly remarks that "it is no easy matter to persuade men to recognize at the outset that which from the remote ages has been considered impracticable, if not impossible; and hence when an important discovery is made, it is desirable that it should be so explained as that no doubt can be raised against its utility in the minds of those who are competent to judge of it in a scientific manner; and having discovered a wonderful mechanical appliance, it is not his intention to enter into an elaborate description of its formation, but he will content himself by giving a few abstract details concerning its capabilities, which he had no hesitation in affirming can be realized, and in a way never before known, although sought after centuries ago. He does not take to himself the credit of being an inventive genius, but is in a position to declare to the world that he has found out a mode of raising water from an unlimited depth to an unlimited height, without being in the least dependent upon steam-power; and he need scarcely add that to talk of performing such an act has been hitherto treated with derision, and scouted at as a libel upon the laws of Nature; and it is, and ever has been, universally held that no pump could raise water higher than 33 feet, or thereabouts. This being regarded as the Alpha and Omega of the Natural law, engineers have always been satisfied to resort to steam agency in order to lift water below or above the ground when the height or depth has exceeded the limits of atmospheric pressure, and no work has yet appeared to upset the fallacy." Mr. Rydell considers that the time has now arrived when it must share the fate of less ancient misconceptions. Speaking of raising water from mines, however deep, he says—"The apparatus would cause the water to ascend to the surface independently of steam-power, no matter what the quantity might be; and when it is considered how vast an extent of labor, fuel machinery, &c., is annually incurred in the work,

ing of mines, the importance of my new principle will at once impress itself upon those who are interested in the mineral wealth of this country. Some of our richest mines are constantly flooded with water, and how to free them has been a knotty question for a considerable length of time, and property of the value of many millions sterling is laying dormant for want of a process by which the water in which it is submerged can be drawn away. Various methods have been adopted, but, even if successful (which they seldom are,) have involved an outlay of which the paucity of the dividends tells too plain a tale; and he can reduce the expense to a comparative trifle, and accomplish an effectual—in fact, complete—outflow of the inundating waters, and catastrophes arising from the breakages of huge engine-beams, and other mechanical causes, will be averted, there being no attendant risks of any kind." The enormous power which Mr. Rydell proposes to secure by his marvellous system of setting natural laws at defiance may be judged of from the fact that he asserts that, although the Great Eastern has a steam-power of 3,000 horses, he can "not only propel this monster vessel over the Atlantic at the speed it now travels by steam agency, but, from cisterns of cold water, he can obtain even a greater power than it now possesses, without using any coal for navigation purposes, thereby leaving the 12,000 tons space open for additional cargo. It would be positive extravagance to consume coal for steam-engine purposes, when a still cistern of cold water would answer as well, besides enabling the vessel to leave port at a moment's notice, if necessary."—*London Mining Journal*, July 26.

#### RAILROAD IRON.

2,400 TONS Railroad Iron, New York and Erie pattern, "Crawshaw's" make,—50, 56 and 58 pounds per lineal yard, in yard at Brooklyn, ready for immediate delivery; for sale by

FIRM THEODORE DEHON,  
August 18, 1862. 28 Beaver st.

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A QUICK and sure means of making preparatory Fastenings. The hole not requiring to be large at the bottom. Also for ANCHORING LIGHT-HOUSES, BEACONS, BUOYS, BRIDGES, DAMS, FORTIFICATIONS, etc. For NEWEL, GATE AND FENCE POSTS, and IRON RAILINGS in various ways.

Also, a CHEAP and ready means for fastening Iron or other ornaments (large or small) to stone or brick buildings. For STAPLES, HINGES, AWNINGS, SIGNS, SHUTTER FASTENERS, LEADER HOOKS, etc.

For INSIDE WORK, such as for fastening articles to Hard Walls, Marble, etc., without hammering or using lead. For fastening Marble Tops to Furniture, etc. They are also so constructed as to be applied in Wood.

For LIFTING PURPOSES, such as Foundrymen's Tools for raising their patterns of wood or metal from the sand. They may be used in tapped or smooth holes.

Orders promptly executed by

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400 TONS RAILS—50 lbs. per lineal yard—T pattern—now ready for delivery at BOSTON. For sale by

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2m30 64 Exchange Place.

#### CAR DUCK.

HEAVY 4-PLY FITCHBURG DUCK OF ALL WIDTHS, u to 144 inches, PLUSHES, BURLAPS, CAR HEAD LININGS, and all kinds of RAILROAD SUPPLIES.

For sale by

WILLIAMS & PAGE,

67 Water st., Boston.

#### QUARTZ MILLS

OF THE MOST APPROVED KIND,

MANUFACTURED BY BURDON, HUBBARD & CO., 103 Front st., BROOKLYN, N. Y. Also Agents and manufacturers of the RUSS PATENT PREMIUM AMALGAMATORS, the best and simplest in use for saving both fine and coarse gold.

THE NEW YORK CENTRAL RAILROAD COMPANY,  
TREASURER'S OFFICE, ALBANY, July 19, 1862.

**EIGHTEENTH SEMI-ANNUAL DIVIDEND.**—The Directors of this Company have declared a Semi-annual Dividend of Three per cent, on the Capital Stock thereof,—free of the United States Income Tax, which will also be paid by the Company—payable on the 20th day of August next, upon stock registered at New York, Boston and Albany, and on the 20th day of September next upon stock registered at London.

Stockholders whose stock is registered at New York, will receive their Dividends at the office of DUNCAN, SHERMAN & CO.; those whose stock is registered at Boston, at the office of J. E. THAYER & BROTHER; those whose stock is registered at Albany, at the ALBANY CITY BANK; those whose stock is registered at London, at the UNION BANK OF LONDON, the latter at the rate of 4s. 1d. to the dollar.

The Transfer Books will be closed at the close of business on Thursday, the 31st day of July inst., and will be re-opened at New York, Albany and Boston on the morning of Saturday, the 23d day of August next.

8:30 JOHN V. L. PRUYN, Treasurer.

#### CUMBERLAND COAL.

#### THE BORDEN MINING COMPANY

ARE now prepared to fill orders and to make contracts for the season of 1862, for CUMBERLAND COAL, DELIVERABLE ON BOARD VESSEL AT Baltimore, Md., Alexandria, Va., or Georgetown, D. C. Purchasers may rely upon the Coal proving equal in quality to that heretofore furnished.

The Company also have the pleasure of announcing that they have completed, after two years' labor, their shaft and machinery upon their new property in the VALLEY OF GEORGE'S CREEK, and are lifting from the very heart of the Coal Basin a superior and perfect article of BITUMINOUS COAL, remarkably free from impurities of every description, and possessing qualities peculiarly adapting it to Locomotive use, and to generating steam under all circumstances. This Coal will be known in market as "BORDEN'S PIT COAL."

Our Railroad friends, and others requiring a superior Coal, will find it to their interest to give this a trial before contracting elsewhere.

For prices and other information apply to

WILLIAM BORDEN.

3m21 Nos. 70 and 71 West st., New York.

#### NOTICE TO HOLDERS OF

Construction Bonds of Dubuque & Pacific R. R. Co.

IN accordance with the order of the District Court of Dubuque County, Iowa, you are hereby required to present your bonds, on or before the 8th day of October, 1862, at the office of the Dubuque and Sioux City R. R. Co., in Dubuque, for conversion into preferred stock of last said company; otherwise the company will be under no obligation to convert the same.

July 12, 1862. 4:29 JAMES M. MCKINLAY,  
Secretary, D. & S. C. R. R.

#### NEW YORK

#### EMERY WHEEL COM'Y,

MANUFACTURERS OF

#### PATENT SOLID

#### EMERY WHEELS,

#### BLOCKS, HONES, ETC.,

For Cutting, Grinding and Sharpening Purposes.

—ALSO—

#### Vanderbilt's PATENT EMERY BELTING

FOR POLISHING METALS, ETC.

For circular pamphlet containing description, price list and testimonials, address

#### NEW YORK EMERY WHEEL COM'Y,

No. 116 Nassau st., New York.

#### RENSSELAER POLYTECHNIC INSTITUTE,

TROY, N. Y.

THE thirty-ninth Annual Session of this Institution for instruction in the MATHEMATICAL, PHYSICAL, and NATURAL SCIENCES, will commence on Wednesday, Sept. 17th, 1862. Appropriate quarters, and a full supply of apparatus, will be provided, so that all the Courses of instruction can be given precisely as heretofore. The new buildings for the Institute will be placed on a more commanding site, and be constructed as soon as possible.

The ANNUAL REGISTER, containing full information, can be obtained from  
3m27 Prof. CHARLES DROWSE, Director.



## GEO. M. FREEMAN, RAILROAD SUPPLIES,

NO. 107 WALNUT STREET,  
PHILADELPHIA.

Railroad Materials, Locomotive and Car Findings,  
MACHINERY AND MACHINISTS' TOOLS,  
MINERS' TOOLS, ETC.

☞ COTTON WASTE. ☞  
WHITE AND YELLOW CAR GREASE,  
LOCOMOTIVE BRASS WORK,

Baggage Checks, Barrows, etc., etc.,  
RAILROAD LANTERNS, SIGNAL LIGHTS,  
STEAM GAUGES, COCKS AND WHISTLES,  
INDIA RUBBER HOSE PACKINGS, ETC.  
LANTERNS OF ALL DESCRIPTIONS,  
ENGINE, STATION, AND SIGNAL BELLS,  
☞ Superior Car Upholstery, etc. ☞

AGENCY OF THE KEROSENE OIL COMPANY

☞ Orders solicited, promptly filled, and forwarded with  
despatch and care at the manufacturers' lowest prices.

## MERRITT & EMERSON,

NO. 64 COURTLANDT ST.,  
NEW YORK,

DEALERS IN

## RAILROAD SUPPLIES

AND

ENGINEERS' STORES.

MANUFACTURERS OF  
BOLTS, NUTS AND WASHERS,  
LAG SCREWS, TURNBUCKLES, ETC., ETC.  
TELEGRAPH MATERIALS.  
PLAIN AND GALVANIZED WIRE INSULATORS.  
INSTRUMENTS, BATTERIES, ETC., ETC.

☞ A complete stock of Railroad and Telegraph  
Supplies and Engineers' Tools constantly on hand.

## PROSSER'S PATENT LAP-WELDED IRON BOILER TUBES.

EVERY article necessary to DRILL the TUBE-PLATES  
and to SET the TUBES.  
Tube CLEANERS, Steel Wire and Whalebone BRUSHES.  
ARTESIAN OIL AND SALT WELL-TUBING.  
LAP-WELDED STEEL BOILER TUBES.  
GLASS ENAMELED IRON WATER PIPE.  
WROUGHT IRON GAS AND STEAM PIPE.  
WROUGHT IRON HOT WATER APPARATUS, for  
Warming Horticultural Buildings.  
VENTILATING do. for Dwelling Houses, etc.  
HOT WATER GAS STOVES, for Plant Windows Piazza  
Greenhouses, Offices, etc.

## KRUPP'S CAST STEEL RAILWAY AXLES & TIRES.

Steel for Rolls, Dies, Tools, Cannon, etc., etc.

THOMAS PROSSER & SON,  
38 Platt st., N. Y.

## SUPERIOR OAK-TANNED, STRETCHED AND RIVETED LEATHER BELTING,

MANUFACTURED BY

PHILIP F. PASQUAY, } 25 Spruce st.,  
N. Y.

DOUBLE BELTS TWICE THE PRICE OF SINGLE  
Best Lace Leather and Steel Hooks for round Belts always on hand.

☞ In comparing my List of Prices with others, it will be  
necessary to compare also the quality of Belting. 3m23



## IMPORTANT TO RAILROAD COMPANIES,

THE ATTENTION OF  
RAILROAD MANAGERS

Is called especially to the Machines manufactured especially  
for the use of Railroad Companies by the proprietors of the

ALBANY AGRICULTURAL WORKS,

CONSISTING OF

## EMERY'S PATENT Railway Horse Power,

Made changeable for both right and left hand work, also  
with changeable degrees of forces and motions of the driving  
Pulleys without changing the Speed and Labor of the Horses,  
thereby adapting them to the different uses required, as Saw-  
ing Wood, Pumping Water, Driving Elevators and Machine  
Shops, Foundries, etc. The Power is also adjustable to any  
degree of wear or use, so as to always insure its working with  
its greatest efficiency. All the running chains in these Powers  
are made of the best MALLEABLE IRON which gives to  
them triple the strength and durability of Grey Iron which  
last is universally used by all other Railway Horse Power  
Manufacturers—thereby at the same time lessening the weight  
of these several hundred pounds, making them less cumbersome  
for handling and transportation.

## WOOD SAWING MILLS.

These Sawing Mills are made upon the most approved and  
convenient plans in use. Having a heavy plate fly-wheel fixed  
to the Mandrill with a Ratchet or catch pulley for the driving  
band on the outside of the fly-wheel—the journal bearings are  
fitted with Babbitt Metal—the wood carriage traverses on iron  
ways and gibbs—a 24 or 26 inch Saw is fitted, filed and set in  
working order and the plates warranted. When desired, a 14  
inch saw is fitted, also a table for the purpose of slitting  
boards, etc. for fencing and carpenter work.

The whole together forming one of the most complete and  
desirable sets of machines for their purposes. They are already  
in very general use on nearly all the principal Railroads in this  
country.

PRICE, ONE HORSE POWER .....\$90.00  
" TWO " " .....120.00  
" SAW MILL, 24 in. Saw ..... 37.00  
SETT BANDS and EXTRAS ... 5.00

## PUMPING ENGINES

Of different kinds for Raising Water for Railroad tanks and  
other purposes, can be furnished on demand with Reciprocating  
or Rotary Pumps—fitted to be operated by these Horse Power  
and the best adapted for Railroad and Mining purposes. One  
of the SEVENTY-FIVE DOLLAR PUMPING ENGINES  
when driven by the TWO HORSE POWER has a capacity  
equal to any Four or Five Horse Power Steam Engine and  
Pumping Machine for the same purposes.



## THRESHING MACHINES

Of the most approved kinds, for one and two horses and with  
simply Separators, or with Complete Cleaners which fit the  
grain for market in one and the same operations, and of the  
most approved construction.

They are very extensively introduced into all the grain-  
growing sections of this country and the world. They are  
especially adapted to the force of the above Horse Powers and  
can be driven by Steam or Water power with equal advantage.  
They will be furnished on the most liberal terms and warranty.  
Liberal discounts made to RAILROAD COMPANIES from the  
above prices, and agents solicited for the sale of their manu-  
factures.

For further particulars see the new Illustrated and Price  
Catalogue of the ALBANY AGRICULTURAL WORKS,  
furnished gratis on application to the proprietors.

EMERY BROTHERS,  
No. 62 & 64 State st.,  
ALBANY, N. Y.

## COTTON WASTE OF DIFFERENT QUALITIES, FOR MACHINERY AND RAILROAD USE

CONSTANTLY ON HAND.

K. EGAN & CO.,  
19 Burling Slip, N. Y.

## BOARDMAN'S Patent Steam - Boilers

SAVE over 30 per cent. of the fuel required for fine or plain  
cylinder boilers, while they have all the advantages of  
strength, cheapness and simplicity of construction, con-  
venience and safety in use, claimed for either. Send for a  
circular.

H. BOARDMAN,  
No. 54 Broadway, N. Y.

## CAR AXLE WORKS.



A. & P. ROBERTS,  
PENCOYD IRON WORKS,  
OFFICE No. 410 WALNUT STREET,  
PHILADELPHIA.  
Rolled or Hammered Car Axles, Bar Iron  
and Forgings.

## A. WHITNEY & SONS CAR WHEEL WORKS,

Callowhill & Sixteenth Sts.,  
PHILADELPHIA, PENN.,  
FURNISH

CHILLED WHEELS,  
FOR CARS, TRUCKS, and TENDERS.

CHILLED  
Driving Wheels and Tires  
FOR LOCOMOTIVES.

ROLLED AND HAMMERED AXLES.  
WHEELS and AXLES,  
FITTED COMPLETE.

G. G. LOBDELL. H. S. McCOMBS. D. P. BUSH  
BUSH & LOBDELL,  
WILMINGTON, DELAWARE,  
MANUFACTURERS OF

CHILLED WHEELS  
AND  
TIRES,  
FOR RAILROAD CARS

Locomotive Engines,  
ARE PREPARED TO EXECUTE PROMPTLY  
ORDERS TO ANY EXTENT FOR THEIR  
CELEBRATED WHEELS,

EITHER SINGLE OR DOUBLE PLATE,  
WITH OR WITHOUT AXLES.

WHEELS FITTED  
To HAMMERED or ROLLED AXLES,  
IN THE BEST MANNER, AT THE SHORTEST NOTICE,  
AND ON THE MOST REASONABLE TERMS.

**THE ROGERS**  
**Locomotive & Machine**  
**WORKS,**  
SUCCESSORS TO  
**ROGERS, KETCHUM & GROSVENOR,**  
**PATERSON, N. J.,**  
HAVING extensive facilities, are now prepared to furnish promptly of the best and most approved description, either  
**COAL OR WOOD BURNING**  
**LOCOMOTIVE ENGINES**  
AND OTHER VARIETIES OF  
**RAILROAD MACHINERY.**

**J. S. ROGERS, Pres't,** } Paterson, N. J.  
**WM. S. HUDSON, Sup't,** }  
**M. K. JESUP, Vice Pres't,**  
**L. P. STARR, Sec'y and Treas'r.**  
44 Exchange Place, New York.

**THE**  
**TAUNTON LOCOMOTIVE**  
**MANUFACTURING COMPANY,**  
**TAUNTON, MASS.,**  
HAVING large facilities, and having had a long experience in the business, are prepared to furnish  
**LOCOMOTIVES,**  
EITHER FOR BURNING WOOD OR COAL,  
OF THE MOST APPROVED CONSTRUCTION.  
ALSO ALL KINDS OF  
**RAILROAD MACHINERY,**  
STATIONARY ENGINES AND BOILERS,  
SUGAR MILLS, SHAFING, ETC.  
**HARRISON TWEED,**  
Agent and Treasurer.  
**P. I. PERIN, Sup't.**

**Locomotive Engines.**  
**DANFORTH, COOK & CO.,**  
**PATERSON, N. J.,**

HAVING erected an extensive Shop, with the most approved Machinery and Tools, are prepared to execute orders for the various classes of Freight and Passenger Locomotive Engines and Tenders, in the best manner and on the most favorable terms.  
Also, Stationary Engines, and the various Tools suitable for furnishing Repair Shops.  
The business of Machine making, heretofore carried on by Charles Danforth & Co., is continued by the present firm, and all orders will receive prompt attention.

**RICHARD NORRIS. HENRY LATIMER NORRIS.**  
**RICHARD NORRIS & SON,**  
**LOCOMOTIVE STEAM ENGINE**  
**BUILDERS.**  
SEVENTEENTH STREET, ABOVE GALLOWHILL,  
**PHILADELPHIA,**

ENGAGED EXCLUSIVELY IN THE MANUFACTURE OF  
**LOCOMOTIVES,**  
**RAILWAY TOOLS AND**  
**MACHINERY.**  
MANUFACTURE to order, Locomotives of any Arrangement, Weight or Capacity. In Design, Material and Workmanship, the Locomotives produced at these Works, are equal to and cannot be excelled by any.

**IRVING HOUSE,**  
**NEW YORK,**  
**BROADWAY AND TWELFTH STREET,**  
ENTRANCE, 45 TWELFTH STREET.

THIS House is now open for the accommodation of FAMILIES and TRANSIENT GUESTS, and will be conducted upon the **EUROPEAN PLAN.**

PROPRIETORS:  
**GEO. W. HUNT,**  
Late of the Brevoort House, Fifth Avenue.  
**CHAS. W. NASH,**  
Formerly of the Great Republic.



**LEMUEL W. SERRELL,**  
**SOLICITOR OF**  
**AMERICAN & FOREIGN PATENTS,**  
**No. 121 NASSAU ST.,**  
**NEW YORK.**

**VENTILATION.**  
THE undersigned has devised and patented the only system of VENTILATION for Buildings, Vessels, RAILROAD CARS, etc., by which spontaneous ventilation can be effectually carried out; and is willing to dispose of the same to parties desirous of purchasing at a reasonable price.  
Address **HENRY RUTAN,**  
Coburg, Canada.

**THE GREAT FIRE IN TROY.**  
**Unparalleled Triumph**  
**OF**  
**LILLIE'S SAFES!**

The following certificates explain themselves:  
TROY CITY BANK, May 21, 1862.  
LEWIS LILLIE, Esq.—Dear Sir: I am sure it will give you as much pleasure to know as it does me to say, that in the recent fire of the 10th inst., which desolated our city and destroyed our Banking-house, the contents of our Bank vault, though the building itself was a heap of ruins, remained entirely unharmed. This result we attribute entirely to the fact that our old Wrought Iron Doors were, about two years since, exchanged for a set of your celebrated Chilled and Wrought Iron Doors and Frames. With the old doors, not a book or paper in the Vault could have been saved; as it is, nothing in it was even damaged, though exposed to the most intense heat.  
Yours, respectfully, **S. K. STOW, Cashier.**

Troy, N. Y., May 14, 1862.  
The undersigned, using **Lillie's Chilled and Wrought Iron Fire and Burglar Proof Safes**, at the time of the late disastrous fire in this city, would state that our safes were subjected to a severe test by fire, the heat varying in intensity, according to the locality and surroundings. The time they were exposed to the fiery ordeal, unprotected by water, varied from 24 to 72 hours. We would say that our money, papers, books, etc. were well preserved, and the Safes are suitable for further use. By comparison with Safes of other manufacture, equally exposed, we have no hesitation in recommending Safes of Lillie's manufacture to the public on their demonstrated merit as entitled to unparalleled confidence as fire-proofs.

James Kenyon, S. O. Gleason, S. Bachelder,  
Percy & King, Gates H. Barnard,  
McCoy & Beadle, W. D. Haight,  
Coon & Van Valkenburgh, Denio & Freiot,  
S. S. McClure, Walsh, Pettit & Anthony,  
Ross & Smith, D. H. Snyder,  
Robert Green, Jonathan Seaman.  
Not dug out—nothing in them.

Troy, May 19, 1862.  
The undersigned had one of **Lillie's Wrought and Chilled Iron Safes**, which went through the fire of the 10th of May. The Safe was exposed to a severe fire for over 24 hours. In falling it turned on its face, and when turned up to open the doors was red-hot. The back of the lower part of the Safe (behind the books) was filled with pennies, which, in falling over, pressed against the books, and brought them directly in contact with the doors. The wrappers on the pennies were mostly good. The books were unfit for further use, but the writing on them was partially legible and could be copied.

**DUSENBURY & ANTHONY.**

Troy, May 19, 1862.  
This is to certify that we had in our store, in this city, when it burned, one of **Lillie's Small Safes**, which was in the fire, without water on the building or Safe. Most of the valuables were removed before the fire, and therefore we were not in haste to get the Safe out of the burning ruins. Some of the papers left in the Safe were legible when taken out, but most of them were charred.  
**I. M. SINGER & CO.,**  
Per **G. W. BARCOCK, Agent.**

This is to certify that the undersigned had one of **Lillie's Patent Chilled Iron Safes** in their store, which was burned during the late severe fire in this city, and we are happy to state, the Safe preserved all its contents in first-rate condition. All the papers were legible, and the books will do for further use, without even rebinding.  
**GRANT, NUTTING & CO.**

The foregoing comprises all the Safes of my manufacture that were in the fire, and below will be found certificates from all the owners of Safes manufactured several years since, by **World's Safe Company**, who used my Patent Chilled Iron Shell, but not my Fire-Proof Cement.

**WORLD'S SAFE COMPANY'S SAFES.**

Troy, May 19, 1862.  
The undersigned, having Safes manufactured by the late **World's Safe Company**, and which were subjected to the great fire of the 10th inst., in this city, would state that our Safes were exposed to a severe heat, being confined in the burning ruins, unprotected by water, from one to three days. On opening the Safes the contents were mostly legible, and to a far greater extent than could be reasonably expected of any Safe. We concur in the opinion that the Safes manufactured by **LEWIS LILLIE**, which were subjected to the fire for a longer time and preserved their contents, are superior and powerful protectors against fire, and by this test we are prepared to recommend them as such to public patronage.

Lyman Bennett, Silliman, Matthews & Co.,  
Flood & Dunham, E. L. Mallory,  
John Hutchinson, E. H. Virgil,  
Sup't National Express Co.

The undersigned, having Safes manufactured by the late **World's Safe Company**, and which were subjected to the great fire in this city, would state, that on opening our Safes the contents were mostly legible. We concur in the opinion that the Safes manufactured by **LEWIS LILLIE**, which were subjected to the fire for a longer time and preserved their contents, are superior and powerful protectors against fire, and we are happy to recommend them to public patronage.

W. & L. E. GURLEY,  
R. L. & G. DRAKE,  
LEONARD SMITH,  
H. E. & W. ALENDORPH, Agent.

Troy, May 19, 1862.  
To whom it may concern: We would certify that when the recent fire broke out in this city, we took out from our Safe (which was made by **World's Safe Company**) all our books, papers, etc., and then left it to the flames without shutting the door, and the Safe will do for further use by being repaired, although the book case was destroyed by the door being left open through the fire.

**ACKLEY & CO.**

Troy, May 19, 1862.  
The undersigned, using Safes manufactured by the **World's Safe Company**, at the time of the late disastrous fire on the 10th instant, in this city, would state that our Safes were filled with fire-brick for the fire-proof, and while several of this class preserved their contents, ours were considerably charred, and only partially legible. In justice to **Mr. Lewis Lillie**, we are pleased to state that Safes of his manufacture proved to be powerful protectors against fire, and have preserved their contents, after having been exposed to the fiery ordeal, unprotected by water, from one to three days.

Stephen Holton, Luther Greenman,  
Bennett, Strickland & Fellows, E. W. Johnson,  
Corliss & House, J. H. Goodsell.

Troy, N. Y., May 17, 1862.  
**LEWIS LILLIE**—Dear Sir: We were using at the time of the late severe fire of 10th inst., a Safe purchased in 1852 of the late **World's Safe Company**. The contents were considerably charred, but our Ledger is mostly legible, and we are able to copy it.

The Safe was subjected to a severe heat for over eighteen hours, and we are satisfied that if water had been thrown on the ruins, as is ordinarily the case, the contents would have come out unharmed. You will please repair our Safe, placing in it the improvements embraced in Safes of your manufacture, and oblige

**SHELDON & GREENE.**

N.B.—The above Safe is believed to have damaged the contents more than any of those named in this circular.

There were only seven Sheet Iron Safes, made by Herring and others, outside of the railroad depot, that were exposed to the fire, four of which were entirely burnt out; the fifth was saved by being early cooled off by water; the remaining two were not severely tested.

**LEWIS LILLIE.**

**H. R. HUBBELL, Agent,**  
**No. 198 Broadway, New York.**

**T. G. SELLEW,**  
MANUFACTURER OF  
**Desks and Office Furniture,**  
**WAREROOM** No. 107 FULTON ST.,  
Near Nassau, N. Y.  
**LIBRARY FURNITURE made to order**